

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of the Local Competition)	CC Docket No. 96-98
Provisions in the Telecommunications Act)	
of 1996)	
)	

COMMENTS OF QWEST COMMUNICATIONS CORP.

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SUMMARY

I. Qwest's Need For Local Connectivity

Qwest is a multimedia communications company offering a full range of voice, data, video and information services both domestically and internationally. Qwest's goal is to use its high-speed, state-of-the-art broadband network to meet the demands of customers throughout the world who are seeking access to innovative, high-capacity services. For end users to realize the full benefits of network capabilities such as Qwest's, companies like Qwest will need access to the capabilities of the local network, which continues to exhibit enormous economies of scale, scope, and connectivity.

The incumbent local exchange carriers (ILECs) (including the regional Bell operating companies (RBOCs) when they qualify for interLATA authority) can easily acquire intercity capacity from carriers such as Qwest (as in fact GTE has done). That capacity is available, at cost-based rates, because a *wholesale market* exists for intercity capacity.

The same is not true for the local network. Entrants will build competitive local facilities, but only in cases where the economics and their business plans justify such construction. Making elements available until a wholesale market develops will ensure that all American consumers have choices of their local service provider. Until such a wholesale market exists for local network elements, competitors will be "impaired" without access to ILEC network elements, within the meaning of Section 251(d)(2). The United States' telecommunications industry will

continue to lead the world if all U.S. carriers can make economically rational lease-versus-build decisions in response to customer demands, cash flow, and opportunity costs -- in the local market as well as in the national and global market.

II. The Purpose of the UNE Provisions

Section 251(d)(2) must be read in light of the goals and structure of the 1996 Telecommunications Act and the purpose of the Section 251(c)(3) network unbundling obligation. First, broad access to ILEC network elements enables Qwest and others to fulfill Congress' goal of *rapid* entry into the local market. Second, broad access to network elements is essential if *all* customers are to see the fruits of local competition. Third, these provisions keep the entry barriers to the local market low. The ILEC mergers speak volumes in this regard. The ILECs have concluded that in order to compete successfully beyond their own incumbent territory, they must become a larger incumbent. Where they are not the incumbent, ILECs will need -- just like other CLECs -- to use network elements, including the network element "platform" -- to compete successfully.

Arguments that making network elements available will discourage facilities investment are dead wrong. They present a false choice: in fact, the wide availability of network elements will allow entrants to build a customer base which then will permit them to construct their own facilities as economically justified. These arguments also miss the real source of innovation -- which is not just in owning facilities, but in using the technical know-how, experience, and ideas of the companies that use local networks to "touch" the customer. Allowing broad use of

local network elements removes an important (and potentially insuperable) obstacle to innovation in pricing, service creation, packaging, and applications.

III. The Wholesale Market Test for “Impairment”

The scope of the Supreme Court’s decision was limited. The Court required only that the Commission articulate a rational standard related to the goals of the Act for the terms “necessary and impair” in Section 251(d)(2). The Court recognized, too, that the Commission had already identified many factors in its 1996 Local Competition Order that could satisfy that test on remand.

The impairment test in Section 251(d)(2), which is written from the point of view of the requesting carrier, requires an inquiry into whether a *wholesale market* exists for a particular element. For a wholesale market to exist, two criteria must be met. First, the competitively supplied network element must be *interchangeable* with the ILEC network element -- meaning that it is comparable in functionality, ease of operation, speed to market, quality and price with the ILEC supplied element. Second, if the element is interchangeable, there must be a sufficient number of *wholesale providers* of the element to produce an effectively competitive market for the network element. The Competitive Telecommunications Association (CompTel) has prepared proposed rules which incorporate this standard. A copy is attached to these comments.

The limited existence of self-supply of elements is not evidence that requesting carriers are no longer impaired. This activity is evidence only that some carriers, for some customers, during particular time periods, in particular

geographic areas, are able to cost-justify self-supply. As the ILECs themselves have recognized in opposing the separate affiliate proposal for advanced services, using an ILEC network element that is operationally integrated with the ILEC network is different from using a network element that is external to that network.

Operational reforms can help to remove the impediments to interchangeability. The FCC's recent collocation reforms, when fully implemented, are one such example. As another, competitively supplied operator services and directory assistance (OS/DA) could become interchangeable with ILEC OS/DA if there were, for example: automated access to equivalent data; operational ease of substitution of competitive OS/DA; and the availability of line class codes in the unbundled switching element to enable choice of a competitive supplier of OS/DA. Once interchangeability has occurred, firms are likely to be interested in being wholesale providers (as Northpoint is, for example, with respect to xDSL capabilities).

In applying the wholesale market test, the Commission should use a sufficiently large geographic area to represent a realistic market from the point of view of supplier and purchaser of elements -- we propose using the "Major Trading Area" or MTA used by the Commission in establishing reciprocal compensation for mobile providers in 1996. The ILEC should bear the burden of proof in removing an element from the mandatory list.

Whether a component of a network element qualifies as "proprietary" is a question that arises only if the Commission has already found impairment to

exist. Access to a proprietary component of an element is “necessary” if lack of access would cause a material loss in functionality for that element.

IV. Establishing, Adding, and Removing Elements from the List

It is essential, for the reasons given in the 1996 Local Competition Order, that the FCC establish a national list of mandatory network elements. The FCC also should have the job of determining, in response to petitions, when an element should come off the list.

The FCC is well-suited to decide the interchangeability issue, which generally could be done on an ILEC-wide (regional) basis, since the inquiry is largely about operational systems. The FCC also should decide whether a sufficient number of wholesale providers exist to produce an effectively competitive market. The Commission should provide in its rules for a formal role for state commissions, which could perform a fact-finding and consultative function similar to their role under Section 271. State commissions also have the authority to add elements to the list through their arbitration responsibility under Section 252 (applying the FCC Section 251(d)(2) standard), and may add elements pursuant to state law as well.

V. Other Statutory Interpretation Issues

The “at a minimum” language in Section 251(d)(2) gives the FCC the latitude to consider other factors in adding to the list of required network elements, although this authority is not needed to prescribe the original list of elements or to add advanced capabilities to that list. Factors such as carrier identity, customer

identity, type of service, and geography are not relevant under the “necessary and impair” test. The “essential facilities” antitrust doctrine is not relevant either, since Congress clearly intended to enact a very different scheme under the network unbundling provisions. Indeed, those provisions would have been unnecessary if Congress had simply codified antitrust law. The availability of retail services also is irrelevant to the impairment question, because retail services are not substitutable for network elements, as the Commission and Supreme Court have already concluded.

The FCC should reinstate its Rule 315(c)-(f), which required ILECs to combine elements for requesting carriers even if the elements are not already combined in the ILEC network. Although these rules were vacated by the Eighth Circuit, that was done on the same erroneous grounds on which it vacated Section 315(b). The Commission can exercise its Section 201(b) authority to reinstate those rules, which are required to give effect to the nondiscrimination and combination provisions in Section 251(c)(3). The Commission should also adopt a rule that requires ILECs to provide nondiscriminatory access to CLECs to the means of combining elements.

VI. Mandatory Network Elements

The presence of five of the seven original network elements in Section 271 dictates that Congress intended that at least these five should be mandatory. In addition to readopting the original seven network elements under the Sections

251(d)(2) test, the Commission should take this opportunity to revise the rules to reflect advances in technology (particularly broadband and packet capabilities).

The CompTel proposed rules incorporate the rule revisions that Qwest believes are necessary to accomplish these goals. In addition to the original list of network elements, the Commission should be sure to include the following capabilities in its revised list: broadband loops (including DS1, DS3, OC3, OC-n, PRI, and xDSL-equipped loops); packet switching; packet transport; and dark fiber.

All of these network elements qualify under any reasonable reading of the Section 251(d)(2) impairment test. The Commission itself already has made a number of the necessary factual findings in the 1996 Local Competition Order that would justify a conclusion of impairment under the Supreme Court's own reading of that term. There is also clearly neither interchangeability nor the presence of a wholesale market, as yet, for any network elements.

The Commission's prompt action adopting this list of elements, and establishing the wholesale market test under Section 251(d)(2), will go far to achieving the Congressional goal of bringing broad-based local competition to all consumers.

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COMMENTS OF QWEST COMMUNICATIONS CORP.

Qwest Communications Corp. ("Qwest") hereby respectfully submits its comments in response to the Second Further Notice of Proposed Rulemaking in the referenced proceeding, 1/ which addresses the questions remanded to the Commission by the Supreme Court in AT&T v. Iowa Utilities Board, 2/

I. QWEST REQUIRES ACCESS TO ILEC NETWORK ELEMENTS IN ORDER TO COMPETE IN A FULL-SERVICE MARKET FOR CONVENTIONAL AND ADVANCED SERVICES.

Qwest is a multimedia communications company offering a full range of voice, data, video and information services both domestically and internationally.

1/ Implementation of the Local Competition Provisions in the 1996 Telecommunications Act of 1996, Second Further Notice of Proposed Rulemaking, FCC 99-70 (rel. April 16, 1999) ("Notice").

2/ AT&T Corp. v. Iowa Utilities Board, ___ U.S. ___; 119 S.Ct. 721 (1999) ("AT&T v. Iowa Utilities Board").

Qwest is currently in the process of completing a 18,500-mile, 150-city fiber optic network that will offer customers and carriers the ability to transmit massive amounts of communications information throughout the United States. When completed in the middle of this year, Qwest's system will include the first nationwide 2.4 gigabit Internet Protocol ("IP") network, which will serve as the backbone for Qwest's IP-based services. This network will enable Qwest to move more information faster, more securely, and more reliably than any other network on earth.

Qwest's network extends 1,400 miles into Mexico, and includes undersea cables in the Atlantic Ocean. In addition, Qwest is part of a joint venture that will extend its reach into Europe. ^{3/} When completed, this European network will span 9,100 miles and will connect 40 European cities to Qwest's North American system. ^{4/} Qwest is also part of a consortium that is building undersea fiber links to Japan and the Asia Pacific Region. The first phase of these fiber links, a connection to Japan, is set for completion in the Year 2000. ^{5/}

^{3/} On November 18, 1998, Qwest and KPN Telecom B.V. entered into a letter of intent to form a joint venture to create a pan-European IP-based fiber optic network, linked to Qwest's network in North America, for data, video and voice services. See <<http://www.qwest.com/press/kpnqwest.html>>.

^{4/} See id.

^{5/} Additional information about Qwest's international expansion plans can be found on the company's website (<www.qwest.com>) and in Qwest's 1998 Annual Report.

The Potential of Qwest's Network. Qwest believes that the efficiency, reliability and security of its network -- the first to have been built with the exact specifications of the new era of the Internet in mind -- will make it a significant force in the telecommunications marketplace. Qwest's bandwidth capabilities will stimulate the development of network-delivered software applications that require faster and more reliable transmission than is offered by other carriers. The development of new, high bandwidth applications will attract additional users, who will in turn encourage the development of additional high-bandwidth applications. Thus, Qwest believes that its network will play a key role in this "virtuous cycle" of bandwidth and applications that will transform daily life for millions of consumers. Qwest's goal is to use its worldwide broadband network to meet the demands of customers throughout the world who are seeking high-capacity, high-speed communications capabilities.

The Value of Competitive Wholesale Markets. For end users to realize the full benefits of Qwest's network, however, Qwest and similarly situated carriers will need to purchase, exchange and utilize the capacity of their competitors. This is an important point and should be carefully considered by the Commission in this proceeding. Because of the tremendous cost of constructing a network, no telecommunications company is single-handedly able to finance the construction of a nationwide network that directly reaches every home and business. Telecommunications companies should not be forced to do so. Consumers of telecommunications will see the lowest prices and the best menu of services only

if the suppliers of telecommunications are free to deploy facilities only where it is cost-effective to do so. Firms that are expanding their businesses, such as today's telecommunications carriers, are routinely faced with "lease-versus-build" decisions. Qwest believes that the United States' telecommunications industry will continue to lead the world if all U.S. carriers can make economically rational lease-versus-build decisions in response to customer demands, cash flow, and opportunity costs.

As ILECs (including Regional Bell Operating Companies ("RBOCs") once they win interLATA authority) seek to win customers by providing end-to-end service, they are in a position to make rational business decisions about how to assemble end-to-end product offerings. This is because ILECs can easily acquire interstate and international capacity, including capacity offered by Qwest. That capacity is available to ILECs is because the long distance market is competitive *and* because a wholesale market for long distance capacity has developed over time.

As a result, each ILEC is free to pursue a lease-versus-build strategy that makes the most sense given its own assets and objectives. Bell Atlantic, for instance, has made clear its desire to construct an intercity network throughout its region.^{6/} SBC, on the other hand, has established lease arrangements with an

^{6/} "Bell Atlantic Launches Next-Generation Long Distance Data Network to Address \$80 Billion Market for 21st Century Communications," (News Release), at 1 (June 8, 1998) (available at <<http://www.ba.com/nr/1998/Jun/19980608001.html>>).

existing long distance carrier for the transport of long distance traffic both inside and outside SBC's territory once SBC receives distance authority.^{7/}

The lease-versus-build freedom enjoyed by ILECs gives them a powerful ability to assemble end-to-end products for their customers. This freedom is good for ILECs and for their customers because it allows ILECs to adapt their networks and their product offerings in response to new information about customer needs, technological innovations, and changes in their own strategic vision.

Unfortunately, the availability of interstate and international capacity that makes this freedom possible stands in striking contrast to the absence of cost-effective *local exchange* capacity for carriers such as Qwest who seek to offer end-to-end products in competition with ILECs. The opportunity to purchase UNEs from ILECs would allow Qwest either to combine those UNEs with its own facilities (which will be the case in areas where Qwest is constructing local fiber rings), or to lease UNEs in areas where Qwest cannot cost-justify installing local networks.^{8/} In

^{7/} "Williams Communications Forms Unique Alliance with SBC to Transport Long Distance Voice, Data Traffic," News Release, at 1-2 (Feb. 8, 1999) (available at <<http://www.williams.com/newsframe.htm>>).

^{8/} Although UNEs are a critical component of Qwest's strategy for serving its nationwide customer base, Qwest would point out that no business would freely elect to rely on its competitors to supply part of its product if there were a feasible alternative. The use of UNEs by Qwest exposes its customers to accidental or intentional network disruption by those in control of the leased facilities. For these reasons, Qwest will continue to seek out other alternatives, including building out its own facilities in certain areas. But UNEs today remain a vital, if imperfect, component for Qwest's strategic vision.

Qwest's view, the Commission will dramatically accelerate local competition -- including competition for advanced services -- if it enables carriers such as Qwest to lease UNEs in a way that begins to approximate the manner in which ILECs can lease long distance capacity.

II. SECTION 251(D)(2) MUST BE READ IN LIGHT OF THE GOALS AND STRUCTURE OF THE ACT.

It is essential that the Commission approach the task of interpreting Section 251(d)(2) 9/ with the goals and structure of the 1996 Act in mind. Qwest believes that Congress sought to achieve two primary goals when it required ILECs to furnish UNEs to competitors. First, Congress sought to promote local competition *in the near-term*. Second, it wanted to bring the benefits of competition to *all* customers, not just high-margin business users. Qwest respectfully submits that the Commission can fulfill both of these objectives only if competitors can lease the full complement of UNEs.

First, access to ILECs' UNEs will enable Qwest and others to fulfill Congress's goal of rapid entry into the local market. Qwest fully agrees that the construction of facilities is a good strategy for entering local markets where the economics so justify. Qwest is currently pursuing that strategy in a number of markets. But even where local facilities are cost-justified, the deployment of local facilities in a single city can consume significant time and resources. If every carrier were forced to deploy even some facilities in every market where it wants to

9/ 47 U.S.C. § 251(d)(2).

compete, competition would be long delayed. If the Commission enables competitors to use UNEs in a flexible and effective manner today, competitors such as Qwest will be able to build a local customer base far more quickly. If Congress had intended any other result, it would not have included Section 251(c)(3) in the Act. ^{10/}

Second, the only way the Commission will fulfill Congress's goal of *broad-based* competition is if it makes UNEs available to competitors. It is axiomatic that Congress was concerned with broad-based local competition. In section 271, Congress determined that mark of a truly competitive local market is one in which both business and residential customers enjoy competitive alternatives.^{11/} That is why it permitted the RBOCs to enter the long distance market only if it could be shown that both business *and* residential markets had competitive alternatives.

In considering ways to promote broad-based competition, the Commission can learn from the three years of experience since the passage of the Act. That experience shows that competitive facilities are likely to be constructed first in dense geographic areas with high concentrations of business customers. That experience also shows that without access to the full complement of UNEs, including unbundled local switching, few CLECs have been able to justify serving

^{10/} 47 U.S.C. § 251(c)(3).

^{11/} 47 U.S.C. 271(c)(1)(A).

residential and small business customers^{12/} even though a number of CLECS have invested in local switching themselves in business districts.^{13/} Although CLECs have invested in transport and some high-capacity loop facilities, for the most part the main form of initial investment in local network facilities has been the purchase of a local switch.

UNEs are needed for broad-based competitive entry because they permit competitors to obtain some of the enormous economies of scope, scale, and connectivity now enjoyed exclusively by the ILECs. The government granted ILECs legally protected local monopolies primarily to permit ILECs to construct ubiquitous networks. Today, those networks give ILECs powerful economies of scale, scope, and connectivity, which together constitute a significant entry barriers for competitors.

^{12/} Access to UNEs is also necessary for CLECs to serve large, multi-location business customers. This is true even for CLECs that have deployed local facilities. See Section XII.C.3.a. (Circuit Switching), *infra*.

^{13/} A study of CLECs in New Jersey, for example, showed that 90.36% of the lines served by CLECs in Bell Atlantic-New Jersey's territory are business lines. Of the ten percent of the lines that are residential, every one is served via service resale. Thus, CLECs in New Jersey were not using their own facilities to provide service to residential customers. CLECs had captured only 1.27 % of all access lines (business and residential combined) in Bell Atlantic New Jersey territory by the end of 1998. "An Analysis of Local Switched Services Market Share Year End 1998 in the Bell Atlantic-New Jersey Region," Competitive Local Exchange Carrier Shared Study, Atlantic ACM, Attachment A to "Comments of MCI WorldCom on Staff's Recommendation for Access to Unbundled Network Elements," filed May 10, 1999 in Local Competition TSFT Process, New Jersey BPU Docket Nos. TX98010010, et al.

By giving CLECs access to UNEs, Congress sought to permit carriers such as Qwest to share in the economies of ILECs' large, ubiquitous local networks. The use of UNEs will permit competitors to enter the market quickly and to grow their customer bases. Competitors will then have the revenues to install their own local facilities where it makes economic sense to do so. Thus, through the creation of UNEs, Congress attempted to ensure that all customers would receive the benefits of competitive choice, and not just those customers that could be economically served by competitive facilities.

The experience of the past three years also demonstrates the enormous advantages of incumbency in another way. Despite the Commission's forceful efforts to open local markets to competition, the ILECs well recognize that the easiest path to *entering* the local market is by *merging* with the incumbent. While Qwest fully expects these ILECs to argue that their local markets are open, and that access to UNEs is not necessary, the actions of these ILECs speak far louder than their words. Currently pending before the Commission are mega-ILEC mergers that contrast sharply with the vision of the Act that incumbent LEC economies should be *shared* with entrants, not further *entrenched* by merger. [14/](#)

The central logic of these mega-ILEC mergers is that the only way these carriers can successfully enter is if they first grow far larger by acquiring other incumbents. SBC, in fact, has characterized local entry (without first

[14/](#) GTE/Bell Atlantic, CC Docket No. 98-184; SBC/Ameritech, CC Docket No. 98-141.

becoming a much larger local monopoly) as a “death march.” **15/** This is a particularly remarkable observation by SBC, given that its out-of-region entry strategy relies on the UNE platform to serve residential and small business customers. **16/** Similarly, the Bell Atlantic/GTE merger is partially founded on the claim (by Bell Atlantic) that it needs nearby GTE facilities to compete with other RBOCs. **17/** Clearly, if ILECs themselves have concluded that the ownership of incumbent networks are a predicate to out-of-region entry, then the Commission can confidently reach the same conclusion in requiring that these facilities be made available as network elements.

15/ In re Joint Application of SBC Communications Inc., SBC Delaware Inc., Ameritech Corporation, and Ameritech Ohio for Consent and Approval of a Change of Control, Public Util. Comm. of Ohio, Case No. 98-1082-TP-AMT, Hearing Transcript, Volume 1, pp. 176-177, January 7, 1999 ,p. 177, lines 14-17 (testimony of SBC witness Kahan): "All I can tell you is our decision process and what we're going to do, okay. And what I'm telling you is we're not going to go into a de novo entry to evolve into a national company. It would be a death march, in our opinion."

16/ Although the details of SBC's out of region entry strategy are proprietary, the public record in Ohio and Illinois reveals that SBC intends to rely extensively on the UNE Platform (at least initially) to compete for residential and small business customers. See, for instance, Rebuttal Testimony of Joseph Gillan before the Illinois Commerce Commission, Docket No. 98-0555 and Deposition of James Kahan, Public Utilities Commission of Ohio, Case No. 98-1082-TP-AMT.

17/ See for instance Direct Testimony of James Attwood, Bell Atlantic/GTE, Before the Illinois Commerce Commission, Docket 98-0866, Exhibit 1.00 (page 14):

GTE's operational platform and presence in service territories around the country and in Illinois serve as a base from which to expand the merged company's facilities.

In its August 1996 Local Competition Order, the Commission correctly emphasized the importance of access to the economies of scope, scale, and connectivity that characterize the incumbent local exchange network. In order to compete with the incumbent, the Commission explained that competitors would need to achieve those same economies, either through construction of their own local facilities, where economic, or through use of ILEC network elements. **18/** The Supreme Court's decision does not disturb this fundamental point that the Commission identified in the Local Competition Order, and Qwest urges the Commission to ensure that competitors can share in the network economies now enjoyed by ILECs.

The Issue of Facilities Ownership. In spite of the collective findings of Congress, the Commission, and the Supreme Court, it will likely be argued that the Commission should now revise its earlier approach to UNEs and instead affirmatively encourage the deployment of facilities by competitors.

In considering those arguments, it is important for the Commission to be aware of two key points regarding the deployment of facilities. First, the deployment of facilities by competitors, where cost-justified, can have significant benefits: it can cut costs, provide CLECs with important control over quality, and reduce CLECs' dependence on ILECs. These are powerful incentives for CLECs to

18/ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, First Report and Order, 11 FCC Rcd 15499, at ¶ 316 (1996) ("Local Competition Order"), aff'd in part, AT&T Corp. v. Iowa Utilities Board, 119 S.Ct. 721 (1999).

build out their own facilities wherever it is economical to do so. It would be a mistake for the Commission to adopt UNE policies aimed “encouraging” facilities deployment by denying access to key UNEs. Rather, Qwest submits that the Commission will facilitate efficient facilities deployment if competitors can decide whether to deploy local facilities using by first entering markets and serving customers with UNEs, and *then* deploying cost-justified facilities using revenues from existing local customers.

Second, there is a difference between encouraging the deployment of competing local facilities and encouraging innovation. Such innovation is less dependent on ownership of local facilities than on the technology, skills, and ideas of companies that use local networks to “touch” the customer. The Commission’s objective should be to promote innovation in the creation of new applications, new pricing structures, and new services. Qwest would encourage the Commission to consider those innovations that occur not just in the local facilities themselves, but also in the services and applications that use the local network as an input. Qwest believes that if customers become addressable through UNEs, applications developers will create more applications. In particular, Qwest strongly believes that if it can assemble an end-to-end broadband pipe using its own high bandwidth network in combination with leased UNEs (in those areas where Qwest lacks local facilities), Qwest will stimulate the development of innovative applications by

offering an end-to-end telecommunications product that minimizes friction between applications developers and end users.^{19/}

In sum, Qwest believes that if the Commission makes UNEs available to competitors, local competition will proceed more swiftly and across a broader range of customers than it has to date. In addition, the availability of UNEs will accelerate, not discourage, the deployment of competing local facilities, and it will do so in a way that increases incentives for the development of innovative applications and services.

III. REQUESTING CARRIERS ARE “IMPAIRED” UNDER SECTION 251(D)(2) UNLESS THERE IS A WHOLESALE MARKET FOR A NETWORK ELEMENT.

A. The Scope of the Supreme Court’s Remand is Limited

It is important, at the outset, to take note of exactly what the Supreme Court did and did not do. The Supreme Court’s remand is actually very limited in scope. The Court did not invalidate any of the original network elements identified by the Commission as mandatory in 1996. The Court required the FCC to “apply *some* limiting standard, rationally related to the goals of the Act,” in determining what network elements should be mandatory. ^{20/} The Court was concerned, in

^{19/} At least one competitor, Rhythms NetConnections makes this point by promoting its own high bandwidth service as a way of avoiding “the hassles of piecing together networking services from local and long distance companies, Internet service providers, and applications vendors.” See <http://www.rhythms.net/about/index.html>.

^{20/} AT&T v. Iowa Utilities Board, 119 S.Ct. at 734.

particular, that the Commission had not considered at all whether a requesting carrier might have an alternative source of supply for a particular network element, because the Commission had examined “impair” only in relation to use of *other* ILEC network elements. **21/** The Court also took issue with the FCC’s conclusion that “any increase in cost (or decrease in quality) would satisfy the “necessary and impair” test of Section 251(d)(2).

Significantly, the Court observed that the Commission had already identified a number of factors in its 1996 Local Competition Order that it could use to justify a finding of impairment under a more stringent test. **22/** The Court merely instructed the Commission to set forth a rational test for Section 251(d)(2) and make appropriate findings to justify its list of mandated network elements. The Commission has substantial latitude in developing a standard under Section 251(d)(2) to be sure that the standard gives full force to the goals of the Act. The Commission’s interpretation of the Congressional standard would be entitled to

21/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 735.

22/ The Court observed that

“[t]hough some of these sections [of the 1996 Order] contain statements suggesting that the Commission’s action might be supported by a higher standard, . . . no other standard is consistently applied and we must assume that the Commission’s expansive methodology governed throughout.”

AT&T v. Iowa Utilities Board, 119 S.Ct. at 736.

deference, moreover, under the very terms of the Supreme Court’s decision, which determined that Chevron deference was due the Commission in its interpretations of the Act’s statutory provisions. **23/**

As we show below, by reading Section 251(d)(2) to require an inquiry into whether a wholesale market for a network element exists, the Commission would fully satisfy the terms of the Supreme Court’s remand and would give full force to the procompetitive goals and structure of the Act discussed in the previous section.

B. Is There a Wholesale Market for Each Network Element?

As a starting point in the Commission’s analysis, the language of Section 251(d)(2) and the Supreme Court’s own decision make it clear that the “necessary and impair” test is written from the perspective of the requesting carrier. The relevant question is whether a requesting carrier is impaired without access to a particular ILEC network element. In other words: “Is there an alternative source of supply for this network element such that failure to obtain the element from the ILEC would not impair a requesting carrier in its ability to provide any service to any customer?” **24/**

From the point of view of requesting carriers, there must be a realistic alternative to reliance on the ILEC to obtain network elements. While self-supply

23/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 738 (“Congress was well aware that the ambiguities it chooses to produce in a statute will be resolved by the implementing agency, see Chevron v. NRDC, 467 U.S. at 842-843, 104 S.Ct. 2778.”)

24/ See Notice at ¶ 42.

is an option for some requesting carriers for some purposes, in general it will not be possible to conclude that requesting carriers have alternative sources of supply for a particular network element until a *wholesale market* for that network element has developed.

A prerequisite for the development of a wholesale market is the *interchangeability* of competitively supplied network elements with the ILEC-supplied network element. Interchangeability depends on the existence of *operational systems* that enable CLECs to substitute a competitively supplied (or self-supplied) network element for that of the ILEC without material delay, reduction in quality, or increase in cost.

In order to conclude that there is a wholesale market for a network element, there must also be a sufficient number of wholesale vendors to produce *effective wholesale competition* for a particular network element. Once the existence of interchangeability and the presence of an effectively competitive market for the network element has been demonstrated, the requesting carrier presumptively is not “impaired” under Section 251(d)(2) and the network element is no longer mandatory.

In sum, Section 251(d)(2) requires the adoption of a “wholesale market test” for impairment. We describe the elements of that test in Section IV, below.

C. Limited Self-Supply of a Network Element Is Not Evidence of a Lack of Impairment.

The Supreme Court referred in one part of its opinion to the Commission's failure to consider the relevance of "self-provision" under Section 251(d)(2) **25/** The Commission also asks this question in the Notice. **26/**

As a threshold matter, interchangeability is just as necessary for self-supply to succeed, as it is for an effective wholesale market to develop.

Interchangeability simply means that an externally supplied facility can be used as efficiently as an ILEC network element. Such a condition is necessary for even large carriers to efficiently self-supply, which is itself a prerequisite to a wholesale market. Once a sufficient number of carriers have successfully self-supplied, installing adequate capacity to challenge the dominance of the ILEC's embedded network, then a wholesale market should develop. In fact, the best evidence that self-supply is a reasonable alternative to ILEC facilities is when sufficient self-supply has occurred to support wholesale competition.

No company would rationally choose to buy network elements from the ILEC when that company can provide those elements to itself through self-supply, all else being equal. Owning one's own facilities gives a carrier the maximum control, and is preferable to relying on a competitor for an essential input -- again, all else being equal. But ownership of facilities may not always be the most

25/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 735.

26/ Notice at ¶ 24.

efficient or cost-effective approach. There may be economies of scale and scope, operational considerations, time to market considerations, and so on, that would impel a carrier to purchase a network element from a wholesale provider (whether the ILEC or a wholesale CLEC) rather than purchasing the element itself. Until a wholesale market develops for an element, it is difficult to draw the conclusion that there is no impairment merely because some carriers are engaging in self-supply. 27/

The fact that some CLECs today are engaging in self-supply of network elements also is not evidence of lack of impairment. It is evidence only that for some carriers, in some instances, for some customers, during particular time periods, in particular geographic areas, they are able to cost-justify self-supply. For example, loops are being self-supplied by a number of CLECs for some of their customers. 28/ This does not mean, obviously, that loops should be taken off the mandatory list of network elements.

27/ The Competitive Telecommunications Association (CompTel) has proposed revisions to the FCC's rules to incorporate the wholesale market test that Qwest also is proposing. A copy of CompTel's proposed rules is attached to these comments for the Commission's convenience.

The CompTel proposed rules provide that in the absence of a wholesale market for a network element, requesting carriers are presumed to be impaired without access to the network element. (CompTel Proposed Rule 51.3xx(c).) Thus, it is possible for an ILEC to overcome this presumption by a demonstration that self-supply is so useful an option as to make it unnecessary to await the arrival of a wholesale market for that element (for example, if self-supply is so easy that it is unlikely that wholesale providers will be needed).

28/ A recent survey of CLECs in New Jersey showed that CLECs leased fewer loops from Bell Atlantic than they self-provided, and that no loops were leased from another carrier. (11,439 unbundled loops from Bell Atlantic compared to 13,568

Similarly, just because some CLECs are using their own local switches to serve certain customers does not mean that the CLEC switch is interchangeable with the ILEC switch. Even a CLEC that owns its local switch could be impaired with respect to serving some customers. This is so because that switch is not already connected to the ILEC loop. Because it is not connected to the ILEC loop, it still requires a manual process for conversion of the customer. A software-based system for migrating ILEC loops to CLEC facilities in the central office has not yet been developed. Until it is, it will always be more expensive, create more delay, and be more difficult to convert customers to a competitor using a CLEC switch than using the ILEC switch. For these reasons, using a CLEC switch may not be economically justifiable for serving all potential customers in a particular central office. The point is that self-supply only works today for certain business plans.

The availability of equipment from a vendor also is not the same as lack of impairment. If it were, then again no network element would be on the list - - because virtually everything can be duplicated in the local exchange, if cost, time to market, quality, and operational substitutability, is no object. In 1996, the Commission rejected a similar argument, advanced by the ILECs, that “if a requesting carrier could obtain an element from a source other than the incumbent,

self-provided loops). CLECs also reported leasing “other facilities” from Bell Atlantic. Source: “An Analysis of Local Switched Services Market Share Year End 1998 in the Bell Atlantic-New Jersey Region,” Competitive Local Exchange Carrier Shared Study, Atlantic ACM, Attachment A to “Comments of MCI WorldCom on Staff’s Recommendation for Access to Unbundled Network Elements,” filed May 10, 1999 in Local Competition TSFT Process, New Jersey Board of Public Utilities Docket Nos. TX98010010, et al.

then the incumbent need not provide the element.” [29/](#) The Commission correctly reasoned that “this interpretation would nullify section 251(c)(3) because, in theory, any entrant could provide all of the elements in the incumbents’ networks.” [30/](#)

Even the ILECs have stated that the ubiquity of their networks creates unique economies of scope and scale that are essential to a carrier’s ability to provide services on a broad basis. In objecting to the Commission’s advanced services separate affiliate proposal, for example, US West explained the importance of the ILECs’ economies of scope and scale as follows:

Incumbent LECs are uniquely well positioned among common carriers to bring advanced services to the mass market, because their networks reach into virtually all communities—big and small, urban and rural. The existence of extensive circuit-switched facilities will permit economies of scope in the rollout of packet-switched technologies; the efficiencies of integrated provision of voice and data services, in turn, make it possible to provide affordable advanced services to all Americans. [31/](#)

US West also explained that the lack of access to integrated ILEC network facilities would make it impossible for either an ILEC separate affiliate or other competitive carrier to provide advanced services on a broad basis:

Structural separation would eliminate all integrative efficiencies. The NPRM’s separation proposal would saddle incumbent LEC’s data

[29/](#) Local Competition Order at ¶ 287.

[30/](#) Id.

[31/](#) Deployment of Wireline Offering Telecommunications Capability, CC Docket No. 98-147, Comments of US WEST Communications, Inc., (filed Sept. 25, 1998), at 16-17.

affiliates with the same array of economic disincentives to serve less well-off communities that new entrants now face. The playing field would indeed be level: *Neither* incumbents *nor* new entrants would be able to justify the economic cost of deploying advanced services to small and rural communities. The new affiliate would be unable to rely on U S WEST's existing ubiquitous network and accordingly, like other CLECs, would be able to serve only lucrative, high-density markets. **32/**

In short, US West stated that preventing an ILEC separate affiliate from using the ILEC's network facilities would "destroy[] the efficiencies that are necessary for incumbents to build an economic case for mass market deployment." **33/** The same is true for competitive carriers.

In sum, given the scale and scope economies of incumbent local telephone exchange plant, the incumbent network's inherent connectivity and ubiquity advantages, the availability of self-supply as an option does not, without more, eliminate impairment. The Commission must still determine whether a competitively supplied (or self-supplied) network element is interchangeable with that of the ILEC, and, if so, whether a wholesale market for the network element has developed.

32/ Id. at 17.

33/ Deployment of Wireline Service Offering Telecommunications Capability, CC Docket No. 98-147, Reply Comments of US WEST Communications, Inc. (filed Oct. 16, 1998), at 11.

IV. THE COMPONENTS OF THE WHOLESALE MARKET TEST

The Commission should adopt as the test for “impairment” under Section 251(d)(2) whether a wholesale market exists for a particular network element. In order to conclude that such a wholesale market exists, the Commission must first be able to determine that (1) competitively supplied network elements are interchangeable with ILEC network elements, so that there is no material reduction in quality, speed of service, or cost, when a requesting carrier uses a competitively supplied element; and (2) that a sufficient number of wholesale providers of network elements exist to produce an effectively competitive market for that network element across a sufficiently large geographic area.

We discuss the components of this test more fully below. The wholesale market test we propose, and the specific network elements that Qwest believes must be provided pursuant to Section 251(d)(2), are set forth in the proposed revisions to Rule 319 filed by the Competitive Telecommunications Association (CompTel) in their comments in this proceeding. For the Commission’s convenience, Qwest has attached a copy of the CompTel proposed rules to these comments.

A. The Concept of Interchangeability

If a network element is available from another source (whether an equipment vendor or another CLEC), but is not equivalent in functionality, ease of operation, speed to market, quality, or price, to the ILEC network element, then it is not *interchangeable* with the ILEC’s network element. A requesting carrier

would be impaired if it were forced to go to an alternative source to obtain the network element, because that competitively supplied element could not be used in the same way as the ILEC-supplied element. In other words, achieving interchangeability means making the operational changes that would allow competitors to take advantage of the economies of the integrated, ubiquitous ILEC network when they use competitively supplied elements, just as they would if they were to use ILEC-supplied elements.

Reading Section 251(d)(2) to require interchangeability is also necessary in order to satisfy the consistent statutory requirements of nondiscrimination that appears so frequently in the network element and interconnection sections of the Act. **34/** A central requirement of the Act is that the ILECs must treat requesting carriers in a nondiscriminatory manner. If a CLEC were forced to use a network element from another source that is inferior to the element when obtained from the ILEC, then in effect the ILEC would be permitted to discriminate against its competitors by denying them access to the ILEC network.

As the Commission recognized in the Local Competition Order, and again in the Notice, the incumbent LEC network is characterized by significant

34/ See, e.g., 47 U.S.C. §§ 251(c)(2)(D), 251(c)(3), 251(c)(6), 252(d)(1)(A)(ii).

economies of “density, connectivity, and scale.” ^{35/} This is the basis for the ILEC’s duty to share its network with competing providers. ^{36/}

The ubiquity and connectivity that characterizes the incumbent LEC network (and which does not characterize the network of any competitor) mean that a network element that is already part of the ILEC network may not be easily interchangeable with a competitively supplied element. What is required are operational reforms that eliminate the impairments to substitution of a competitively supplied element for that of the ILEC.

The ILECs themselves have explained the critical importance of using network elements that are operationally integrated with their networks. For example, an article appearing in the magazine of the incumbent LEC industry association, USTA, observed that:

Because of their fragmentary nature, UNEs will be operationally difficult to order and to provision by both sides. Product packages that comprise appropriate and pre-set UNE combinations could reduce some of the difficulties. ^{37/}

^{35/} Notice at ¶¶ 26-27, quoting Local Competition Order, 11 FCC Rcd at 15508-09, ¶ 11.

^{36/} See AT&T v. Iowa Utilities Board, 119 S.Ct. at 726 (1999) (“Foremost among these duties [to open local markets] is the LEC’s obligation under Section 251(c) . . . to share its network with competitors.”)

^{37/} Arias, Salvador, “Wholesale Marketing Strategy: A Changing Portfolio of Opportunities,” Teletimes, United States Telephone Association, Vol. 12, No. 3 (1998) at 37.

Ameritech made clear the need for access to such operationally integrated facilities clear in objecting to the Commission's proposed requirement that the ILECs create separate affiliates for the provision of advanced services. **38/** Ameritech stated that when it integrates its advanced services facilities and equipment with its incumbent LEC network,

[s]horter provisioning times would be possible because of seamless network facilities and operations. Improved service reliability would also result from combined data and interLATA service entities because a single integrated network would eliminate a redundant layer of switching and transport between two subsidiaries, thus reducing the number of potential failure points. Moreover, a single set of OSS would ensure more effective network management, monitoring and troubleshooting. **39/**

Ameritech observed that such operational integration is central to enabling the ILECs "to deliver the levels of service and reliability required by users of large data networks." **40/** CLECs face the same problems, because their competitively supplied network elements are not already operationally integrated with the ILEC network.

38/ Deployment of Wireline Service Offering Telecommunications Capability, CC Docket No. 98-147, Comments of Ameritech, (filed Sept. 25, 1998) at 59.

39/ Id.

40/ Id.

B. Examples of Operational Reforms That Can Lead to Interchangeability

Many of the current impairments to the interchangeability of competitively supplied network elements with ILEC network elements can be removed through operational reforms. Such reforms can help make the substitution of competitively supplied elements for ILEC elements seamless and transparent to the requesting carrier. The FCC's recently adopted collocation reforms, for example, is an example of an important operational reform that is a necessary prerequisite in making CLEC switching interchangeable with ILEC switching and in making competitively supplied xDSL loops interchangeable with ILEC xDSL-equipped loops. [41/](#)

Operator services and directory assistance (OS/DA) is an example of a network element where few impairments to interchangeability remain. These remaining obstacles may be relatively easy to remove. They include, for example, (1) automated access by competitive OS/DA suppliers to the same data used by the ILECs, updated as frequently, and at similar cost; (2) ease of substitution of competitively supplied OS/DA for ILEC-supplied OS/DA, for any network configuration; (3) the existence of operational systems that would allow CLECs to use another source of OS/DA service (for example, if a CLEC is using ILEC unbundled local switching, the ability to create the appropriate line class codes in

[41/](#) As discussed below in connection with the switching and loop network elements, other impairments to interchangeability still exist for each of those elements.

the ILEC local switch). These operational obstacles are “impairments” that the ILEC has it within its power to remove.

For every network element, there are operational reforms that are necessary before the Commission could conclude that interchangeability of competitively supplied elements with ILEC elements is possible. We discuss other such reforms in connection with the discussion of individual elements, in Section XII, below.

C. Sufficient Number of Wholesale Providers

Once interchangeability is established for a network element, the second stage of the inquiry is whether there is a sufficient number of wholesale providers of that network element, across a sufficiently large geographic area to constitute a commercial market, to produce a presumption that there is an effectively competitive wholesale market for that network element. There are already some companies that have as their business plans, at least in part, to be wholesale providers of network elements. For example, NorthPoint Communications, Inc. (“NorthPoint”), a national provider of high speed, local data network services using digital subscriber line technology, recently stated that it intends to market its network and data transport services to, among others, long distance and local telephone carriers. ^{42/} These carriers will in turn resell

^{42/} See NorthPoint Communications Group, Inc.’s Securities and Exchange Commission filing made pursuant to Rule 424(b)(3), May 5, 1999 at 3 (available at <<http://www.sec.gov/Archives/edgar/data/1080558/0000929624-99-000832.txt>>).

NorthPoint's data network services to end users at retail rates. **43/** As another example, Teltrust is interested in providing competitive operator services and directory assistance. **44/**

Section 51.3xx(b)(2) of the CompTel proposed rules provides that this part of the wholesale market test would be presumed satisfied if it were shown that:

(2) for a geographic area no smaller than a Major Trading Area, there are sufficient alternative providers of the particular network element capable of supplying the network element on terms that are comparable in quality, cost and efficiency to those of the ILEC, and in quantities sufficient to result in a competitive market for such elements and facilities.

There is no magic number of wholesale providers that will automatically yield an effectively competitive market. Today there is a wholesale market in the equivalent of network elements intercity transport, because the operational problems underlying interchangeability have been solved and because there are enough wholesale providers to create a competitive wholesale market, with cost-based rates. There is every reason to believe that once interchangeability is achieved for local network elements, a wholesale market for local network elements also will develop. Spare capacity can be sold to carrier-customers, and the

43/ See *id.*

44/ Companies interested in offering competitive OS/DA still need access to nondiscriminatory inputs from the ILECs in order to offer this product on an interchangeable basis with the ILECs OS/DA. This stage has not yet been reached.

cost and risk of additional investment can be spread among retail and carrier-customers.

Once there are a sufficient number of wholesale providers to create effective competition for a particular network element, it will not be critical to determine whether the wholesale price for that network element is “materially” different from the price charged by the ILEC. In a competitive market, all providers (including the ILEC) should be pricing at forward-looking cost, so the Commission can presume that the wholesale prices are not materially different than those of the ILEC for those network elements. [45/](#)

In sum, the Commission must not only determine that interchangeability has occurred, but that the wholesale market has developed in response to that interchangeability. As we discuss in the next section, the geographic scope of the market must be sufficiently large to make sense both from the perspective of the wholesale provider and the purchasing carrier.

D. Geographic Scope of Wholesale Market for Network Elements.

As interchangeability becomes possible and wholesale network element markets develop, it will be possible to remove network elements from the list. It is essential, in making the determination whether a wholesale market exists

[45/](#) Of course, if wholesale providers of network elements are pricing their products substantially higher than the ILEC, this would be evidence that an effectively competitive market for network elements has not yet developed, or that the competitively supplied network elements are not yet interchangeable with the ILEC’s network element.

for a network element, that the size of the market is sufficiently large to function as a real market from the point of view both of the wholesale supplier and the requesting carrier. The market area has to be sufficiently large to take into account the practicalities of entering a market. CLECs cannot realistically buy network elements on a patchwork basis from multiple carriers within a small geographic area, and have this kind of arrangement work on an operational basis.

Qwest proposes that the Commission use the Rand McNally Major Trading Areas (MTAs) as the appropriate geographic market. [46/](#) This is the area that the Commission chose to define the scope of the “local service area” for purposes of determining reciprocal compensation obligations with respect to commercial mobile radio service (CMRS) providers under Section 251(b)(5) in the Local Competition Order. [47/](#)

MTAs already are used to determine the licensing areas for PCS providers, [48/](#) paging providers, [49/](#) and some SMR providers. [50/](#) The Commission

[46/](#) Rand McNally Commercial Atlas & Marketing Guide 36, 38-39 (130 ed. 1999). Rand McNally has identified 47 MTAs. Rand McNally Commercial Atlas & Marketing Guide at 39. The Commission, however, uses 51. These include, in addition to the 47 Rand McNally MTAs: Alaska, Guam and the Northern Mariana Islands, Puerto Rico and the United States Virgin Island, and American Samoa. 47 C.F.R. § 90.7. MTAs often, but do not always, track state boundaries. They are established based on studies of physiography; population distribution; newspaper circulation; economic activities; transportation patterns, services, and facilities; and the field reports of sales analysts. Rand McNally Commercial Atlas & Marketing Guide at 39. Each Rand McNally MTA is named after one or more cities which serve as the MTA’s primary center (or centers) of wholesaling, distribution, banking, and specialized services, such as advertising. Id. at 36.

[47/](#) Local Competition Order at ¶ 1036.

[48/](#) 47 C.F.R. § 24.202.

chose to use these geographic areas in the PCS context because MTAs “were designed by Rand McNally based on the natural flow of commerce.” ^{51/} The Commission also chose to use MTAs because it believed they would “provide the economies of scale and scope necessary to promote the development of low cost PCS equipment.” ^{52/} In addition, the Commission believed that the use of MTAs, rather than smaller geographic areas, would facilitate interoperability with other PCS systems within the MTA regions. ^{53/} The MTA is a good choice for the wholesale market test under Section 251(d)(2) because it is a natural market, defined by the way companies actually do business. The MTA is also large enough to permit wholesale suppliers and their customers to do business with each other on a commercially viable basis.

Determining interchangeability would be accomplished by evaluating the availability of operational systems that permit the substitutability of competitively supplied network elements for those of the ILEC. A region-wide (ILEC-wide) approach makes sense because the operational and provisioning

^{49/} Id. § 22.503(b).

^{50/} Id. § 90.661.

^{51/} Amendment of the Commission’s Rules to Establish New Personal Communications Services, Gen Docket No. 90-314, RM-7140, RM-7175, RM-7618, Second Report and Order, FCC 93-451 (rel. October 22, 1993), at 7732, ¶ 73 (subsequent history omitted).

^{52/} Id. at 7733, ¶¶ 75, 76.

^{53/} Id. at 7733, ¶ 76.

systems for UNEs are generally developed and implemented by each ILEC for its entire region, with the same systems being duplicated in individual states and markets. For those ILECs that can establish interchangeability in only one MTA (or one state), then the FCC still should be the one to determine interchangeability, because the systems the ILECs develops could presumably be used throughout that ILECs region to establish interchangeability as well. [54/](#)

E. Burden of Proof.

As discussed below, the initial list of UNEs should be established by the FCC, in this rulemaking docket, and it should be a national list applicable everywhere. There is no location today where there is a wholesale market for the network elements on the original list -- although that could change in the near future.

The ILECs should have the burden of demonstrating that interchangeability has been accomplished. [55/](#) This is so because, as the ones with access to the operational data necessary to make alternatively-supplied network elements substitutable, they are the ones with the power to make such interchangeability a reality. In addition, as the entities asking to remove a network

[54/](#) For example, in recognition of the value of ILEC-wide standard OSS, the FCC required Bell Atlantic, as a condition of its merger with NYNEX, to provide uniform interfaces throughout its region for all OSS functions, including pre-ordering, ordering, provisioning, billing, and maintenance and repair. Applications of NYNEX Corporation, Transferor, and Bell Atlantic Corporation, Transferee, for Consent to Transfer Control of NYNEX Corporation and its Subsidiaries, File No. NSD-L-96-10, FCC 97-286, Memorandum Opinion and Order (rel. August 14, 1997).

[55/](#) See Notice at ¶ 12.

element from the list, they must have the burden of proof. Otherwise, the ILECs could begin filing petitions immediately after the rules are adopted, asking to remove elements, with requesting carriers bearing the burden of proving that circumstances had *not* changed. The Commission in this proceeding will adopt rules prescribing the required network elements, and they must be presumed lawful, like all other rules.

The wholesale market test, moreover, sets up presumptions that ILECs could take advantage of. See CompTel Proposed Rule 51.3xx(c). If an ILEC proves that interchangeability has occurred, and that there are a sufficient number of wholesale providers, throughout a sufficiently large geographic area, then the ILEC will have established the equivalent of a *prima facie* case, with the burden shifting to requesting carriers to disprove the existence of a wholesale market.

Because the CompTel rule creates only a *presumption* that impairment exists if there is no wholesale market, it also might be possible for an ILEC to prove that impairment no longer exists even if there is no wholesale market yet. For example, it is possible (though unlikely) that the availability of self-supply alone would be sufficient to remove impairment (assuming, of course, that interchangeability has been established), though it would be necessary to explain why no wholesale market has developed in that situation.

F. Material Differences in Cost, Availability, and Quality

The Commission asked for comment on how it should evaluate differences in such factors as cost, availability, and quality. ^{56/} These differences are “material” if they affect the ability of a competitor to serve its intended customers with the services that the competitor chooses to offer, and to do so on a profitable basis.

Differences in cost are relevant, certainly, because material cost differences could make the difference between profitability and loss. Material differences in input prices also obviously affect a CLEC’s ability to compete with the ILEC because those input price differences affect the CLEC’s ability to compete on retail price with the ILEC. Since the new entrant generally has to underprice the incumbent to win the business anyway, differences in input price can mean the difference between success and failure in the marketplace. The same holds true for differences in quality, delays in provisioning, and so on.

That being said, however, under the approach we have proposed, it would not be necessary to define with great precision what a “material” difference would be. The wholesale market test is largely a qualitative, not quantitative, test. Once there is interchangeability and a sufficient number of wholesale providers to create an effectively competitive wholesale market for a network element across a sufficiently large geographic area, it becomes less important to determine, for example, whether the price generated by the wholesale market is comparable to the

^{56/} Id. at ¶ 21.

ILEC network element price. Both should be priced at a competitive level -- thus, at cost. 57/

The concept of interchangeability, which is largely an operational concept, also does not generally require fine distinctions to be made. In general, either an element is or is not interchangeable with the ILEC's element. The existence of numerous wholesale providers would be one indication of the presence of interchangeability. It also would be evidence that there are no material differences in price, quality, and speed of provisioning as compared to the ILEC (assuming, of course, that CLECs are not using non-ILEC wholesale providers because the ILEC is not living up to its obligations to provide cost-based network elements on a nondiscriminatory basis).

The existence of self-supply alone, however, would not be evidence that there are no material differences in price, quality, and speed of provisioning between competitively supplied elements and ILEC elements. While for some CLECs, in some locations, to serve some customers, it may be cost-justified to install their own local facilities, this does not mean that there are no material differences between those facilities and those of the ILEC when those facilities are used to serve other customers or in other locations, or are used by other CLECs. As discussed above, impairment can exist in the face of self-supply.

57/ Network element pricing at TELRIC should be roughly equivalent to the price that would be generated by an effectively competitive market, because TELRIC prices are established on the basis of forward-looking cost.

The “wholesale market” test thus easily satisfies the Supreme Court’s decision requiring the Commission to consider whether “any” difference in cost or quality should constitute “impairment” under Section 251(d)(2).

V. ACCESS TO THE PROPRIETARY COMPONENTS OF A NETWORK ELEMENT ARE “NECESSARY” IF A MATERIAL LOSS IN THE FUNCTIONALITY OF THE ELEMENT WOULD RESULT WITHOUT SUCH ACCESS.

The terms “proprietary” and “necessary” in Section 251(d)(2)(A) of the 1996 Act require a two-part analysis. First, the Commission must determine whether a network element contains a proprietary component. Second, if so, the Commission must determine whether the lack of access to that proprietary component would cause a *material loss in the functionality* of that network element. If the answer to this second inquiry is yes, access to the proprietary component is “necessary.” The analysis of whether an element has a proprietary component under Section 251(d)(2)(A) need only be made if the Commission has already concluded that requesting carriers would be “impaired” under Section 251(d)(2)(B) without access to that element.

A. “Proprietary”

There is no reason for the Commission to change its treatment of the term “proprietary” in the Local Competition Order. **58/** The proposed CompTel rule

58/ Local Competition Order at ¶¶ 283-84. The Commission’s order on this point was reasonable, and neither the Eighth Circuit nor the Supreme Court questioned it. The Supreme Court decision went to the meaning of “necessary,” not to the meaning of “proprietary.”

makes it clear that the Commission's inquiry is whether a component of a network element is proprietary, not whether the element itself is proprietary. [59/](#)

The Commission also should make clear in this proceeding that the term "proprietary" refers solely to proprietary interests the ILEC may have in components of network elements, not to proprietary interests of third parties. The proprietary interests of third parties in components of network elements are protected by other means, just as they are protected when accessed by the ILECs in their use of network elements.

B. "Necessary"

The Commission reaches the "necessary" portion of the analysis only if it determines that a component of a network element is proprietary. Access to a component of a network element should be considered "necessary" if lack of access to that component would cause a *material loss in the functionality* of the network element. [60/](#)

In the case of switch routing tables, for example, assuming for the sake of argument that such tables properly could be considered proprietary, it is clear that without access to the routing instructions in the switching element, the

[59/](#) This is consistent with the Commission's understanding of the possible proprietary characteristics of some network elements. See, e.g., Local Competition Order at ¶ 284 (proprietary information contained within an ILEC database).

[60/](#) In the Local Competition Order, the Commission interpreted necessary as meaning that "an element is a prerequisite to competition." Id. at ¶ 282. The Supreme Court asked the Commission to take another look at this rationale. AT&T v. Iowa Utilities Board, 119 S.Ct. at 734, 736.

usefulness of that element would be greatly reduced. If there is a material loss in the functionality of that element when access to the proprietary component is denied, then such access is “necessary” in order for the requesting carrier to use the network element. In the case of the switching element, without access to the routing instructions, there would be a material loss in its functionality and thus access to that proprietary component is necessary for competitors to obtain access to the functionality of the element itself.

VI. THE PROCESS FOR ESTABLISHING, ADDING, AND REMOVING UNES FROM THE MANDATORY LIST

A. The FCC Should Establish National Rules.

It is essential that the FCC adopt in this proceeding a set of mandatory network elements applicable on a nationwide basis. State-by-state assessments of (a) whether a wholesale market has developed for a network element in a given MTA or (b) whether a network element component is proprietary, and if so, necessary under Section 252(d)(2)(A) would impose prohibitive burdens on competitive carriers. The same is true for attempts to carve out limited geographic areas in which network elements might be unavailable.

In the Local Competition Order, the Commission found that, for a variety of reasons, national rules are critical to the development of local competition in the telecommunications marketplace. ^{61/} For example, the Commission found that uniform, national rules are important because they can address the issue

^{61/} Local Competition Order at ¶¶ 53-62.

unequal bargaining power between ILECs and new entrants more directly than individual state rules can. [62/](#) The Commission also found that fair negotiations among carriers and state arbitrations of interconnection agreements will be expedited and simplified by the existence of national rules. [63/](#) In addition, the Commission held that national rules are desirable because they create efficiency and predictability, thereby making it easier for carriers to facilitate entry decisions. [64/](#) According to the Commission, national rules also reduce the need for new entrants to design costly multiple network configurations and marketing strategies to allow for more efficient competition which, in turn, benefits consumers. [65/](#) Perhaps above all else, national rules simply reduce the need for competitors to revisit the same issues in 51 different jurisdictions, thereby reducing administrative burdens and litigation for all carriers. [66/](#)

Significantly, the Commission found that the creation of national rules is consistent with the terms and goals of the 1996 Act. [67/](#) The Commission also found that national standards for local entry are helpful in enabling the Commission, the Department of Justice, the states, and even the ILECs to carry out

[62/](#) Id. at ¶ 55.

[63/](#) Id. at ¶ 56.

[64/](#) Id.

[65/](#) Id.

[66/](#) Id.

[67/](#) Id. at ¶ 54

their responsibilities under the 1996 Act. ^{68/} The Supreme Court's decision in AT&T v. Iowa Utilities Board reinforces these conclusions. In upholding the Commission's jurisdiction to impose rules for local market entry, despite the existence of Section 2(b), the Court made it clear that the FCC possesses the authority to establish federal telecommunications policy and to adopt federal rules to create consistent market-opening obligations for all ILECs. ^{69/}

In sum, national network element rules are needed and fully authorized under the 1996 Act.

B. The FCC Should Decide When Elements Come Off the List, With a Consultative Role by States.

In addition to establishing the initial national list of mandatory network elements, the Commission also should be responsible for determining when an element should come off the list because impairment no longer exists (that is, when interchangeability has been accomplished and a wholesale market has developed). However, the state commissions can and should have an important role in developing the factual record needed to determine whether a wholesale market has developed in a particular geographic area.

It is essential that the FCC have the job of determining when it is time to take an element off the list. First, giving the FCC this role is consistent with the structure of the Act and the plain language of Section 251(d)(2), which

^{68/} Id. at ¶ 57.

^{69/} See AT&T v. Iowa Utilities Board, 119 S.Ct. at 729-33.

contemplates that the Commission will decide when an element is required under the “necessary and impair” test. Second, the FCC should decide when elements come off the list in order to ensure consistent nationwide rules for local competition, and to ensure that CLECs in every state have the full protection of the Act.

Third, the resource implications for CLECs of giving state commissions the ability to take elements off the list would be enormous. Few CLECs could afford to repeatedly defend against petitions requesting the elimination of the availability of each network element in every state in which the CLEC wishes to provide service. Indeed, ILECs already are suggesting that state commissions should require CLECs to respond to lengthy and burdensome “information requests” demonstrating their need for network elements and the availability of network elements. ^{70/} Small and medium CLECs simply do not have the resources to negotiate, arbitrate, and file complaints with state commissions for every UNE, in every locality, for every end office, and for each particular customer the CLEC seeks to serve. ^{71/} Moreover, ILECs could easily force CLECs into protracted negotiations

^{70/} See, e.g., Local Competition TSFT Process, New Jersey Board of Public Utilities Docket Nos. TX98010010, et al., Bell Atlantic-New Jersey Reply Comments, at p. 9 and Exhibit 1.

^{71/} See Investigation of Southwestern Bell Telephone Company’s Entry into the InterLATA Telecommunications Market, Texas Public Utility Commission, Project No. 16251, Comments of Premier Network Services, Inc. (filed Feb. 22, 1999), at 10-11. See also Investigation of Southwestern Bell Telephone Company’s Entry into the InterLATA Telecommunications Market, Texas Public Utility Commission, Project No. 16251, Southwestern Bell Telephone Company’s Response to Questions Regarding the Effect of the Supreme Court’s Decision in AT&T Corp. v. Iowa Utilities Board (filed Feb. 15, 1999), at 10-11; Proceeding on Motion of the Commission to Examine Methods by Which Competitive Local Exchange Carriers Can Obtain and Combine Unbundled Network Elements, et al., New York Public

and litigation even where the ILEC knows it will lose because the delay would be sufficient to cause potentially irreparable harm to the CLEC. [72/](#) In short, the expenses and delays of such pervasive and unnecessary litigation would raise new entrants' costs and create investor uncertainty, thus raising barriers to entry for competitive carriers.

At the same time, the state commissions can and should play a valuable consultative role in the Section 251(d)(2) determination process similar to the consultative role they play under Section 271 of the 1996 Act. [73/](#) The FCC should adopt rules that provide for such a role. For example, the Commission could provide in its rules that states shall develop the factual record on the number of wholesale providers in an MTA and thus provide input on the question whether a wholesale market has developed for a particular network element in that MTA.

C. The States May Add UNEs to the Mandatory Network Element List Through Their Arbitrations of Interconnection Agreements and Pursuant to State Law.

As part of their obligation to arbitrate interconnection agreement disputes under Section 252(b), state commissions have the ability -- and indeed the duty -- to determine whether an additional network element should be made

Service Commission, Case Nos. 98-C-0690, 95-C-0657, Comments of Bell Atlantic-New York (filed March 4, 1999), at 8-9 (suggesting that UNE availability should be determined at this micro level).

[72/](#) Investigation of Southwestern Bell Telephone Company's Entry into the InterLATA Telecommunications Market, Texas Public Utility Commission, Project No. 16251, Comments of Premier Network Services, Inc. (filed Feb. 22, 1999), at 11.

[73/](#) 47 U.S.C. § 271(d)(2)(B).

available by an ILEC. For example, if a requesting carrier identified a new capability of the ILEC network, the carrier could request access to that capability under Section 251(c)(3). If the ILEC refused to offer that element, the requesting carrier has the right to seek arbitration before the state commission of that denial. In arbitrating interconnection agreements, the states must apply the FCC's "necessary" and "impair" standards when considering the addition of network elements, as the FCC made clear in the Local Competition Order. **74/**

Apart from any authority state commissions might have in their implementation of the federal act, state commissions also may have the authority to augment the FCC's mandatory list of network elements pursuant to state law. In taking action under state law, state commissions are not bound to apply either the "necessary" and "impair" tests under the 1996 Act or the FCC's standards for doing so. State commissions do not have the power, however, to *remove* network elements from the FCC's mandatory list, as this would be equivalent to depriving requesting carriers of a federal right.

VII. THE "AT A MINIMUM" LANGUAGE GIVES THE FCC LATITUDE TO CONSIDER OTHER FACTORS.

Section 251(d)(2) directs the Commission to "consider, at a minimum," the necessary and impair conditions in prescribing mandatory network elements. The Commission need not revisit the question of what additional authority it might have under the Section 251(d)(2) "at a minimum" language to consider other factors

74/ Local Competition Order at ¶ 244; 47 C.F.R. § 51.317.

tin determining which network elements must be unbundled by ILECs. The Commission correctly concluded in its 1996 Local Competition Order that the “at a minimum” language permitted it to consider factors in addition to the factors specified in Section 251(d)(2)(A) and (B). ^{75/} Nothing in the Supreme Court’s decision requires it to reexamine that conclusion, since the Commission did not rely on that language in creating Section 319 of its rules. ^{76/} In addition, the wholesale market test for “necessary and impair” proposed by Qwest is more than adequate to bring each of the network elements advocated by Qwest within the list of mandatory elements, without the need to reach the question of the Commission’s authority to consider other factors under the “at a minimum” language.

If the Commission nevertheless does decide to revisit its original interpretation of this statutory language, then it should again conclude that the words “at a minimum” operate to expand the considerations that would support classification of a network element as mandatory. These words were not superfluous. Congress must have intended the term “at a minimum” in Section

^{75/} Id. at ¶¶ 280, 286 (“The standards set forth in Section 251(d)(2) are minimum considerations that the Commission shall take into account in evaluating unbundling requirements.”). The Commission did not make it clear in the Local Competition Order whether those factors could operate to limit the availability of network elements that satisfy the “necessary and impair” test. The Commission should make it clear that the plain language of the beginning of Section 251(d)(2) does not confer that authority on the Commission, but only allows the Commission to rely on other factors to add to the mandatory list. Any other reading of the “at a minimum” language would read the impairment test out of the Act, thus leaving carriers with no access to ILEC UNEs despite demonstrated impairment.

^{76/} See id. at para. 280.

251(d)(2) to allow the Commission to consider additional relevant factors that might justify requiring ILECs to provide a particular network element even in the absence of the appropriate “necessary and impair” findings.

The “at a minimum language” would permit the Commission to consider, for example: (1) the effect on the development of local competition of a network element’s unavailability, (2) the need to lower barriers to entry in the local exchange market, (3) the importance of mass market competition, (4) the importance of full-service competition, and (5) the practical difficulties of dealing with multiple vendors.

Of course, we believe that these factors can and should be considered as part of the “necessary” and “impair” analysis. We also believe that these factors already would be taken into account in our proposed wholesale market test. But should the Commission conclude otherwise, it can still consider these factors under the “at a minimum” language.

VIII. FACTORS SUCH AS CARRIER IDENTITY, CUSTOMER IDENTITY, TYPE OF SERVICE, AND GEOGRAPHY ARE NOT RELEVANT UNDER THE “NECESSARY AND IMPAIR” TEST.

Some ILECs have suggested, at least in some state proceedings, that it might be appropriate for them to use factors such as carrier identity, customer class, type of service, or geographic location to restrict access to network elements that otherwise would be available under Section 251(d)(2). ^{77/} Neither ILECs, this

^{77/} Local Competition TSFT Process, New Jersey Board of Public Utilities Docket Nos. TX98010010, et al., Bell Atlantic-New Jersey Reply Comments (filed March 5, 1999), at 8-9; Investigation of Southwestern Bell Telephone Company’s

Commission, nor a state commission can lawfully use such factors to restrict access to network elements, either under Section 251(d)(2) or 251(c)(3).

Section 251(d)(2) requires the FCC to “determin[e] which network elements will be made available for purposes of subsection 251(c)(3).” This language in no way limits how, by whom, or where a UNE may be used. Section 251(c)(3), in turn, requires ILECs to provide network elements to “any requesting telecommunications carrier.” That section therefore imposes no limits on what carriers may use a network element. Section 251(c)(3) also requires access to network elements to be “nondiscriminatory.” Any restrictions on the carriers that may use a particular network element, or the class of customers to be served, or the type of service to be provided, would run afoul of the nondiscrimination requirement of Section 251(c)(3). Such restrictions are also flatly inconsistent with the Congressional objective to make available to *any* carrier the network elements, interconnection arrangements, collocation, and resale that are available to one carrier. This goal is embodied in the FCC’s interpretation of Section 251(i) of the Act (the “pick and choose” rule), which was expressly upheld by the Supreme Court in AT&T v. Iowa Utilities Board case. **78/**

Entry into the InterLATA Telecommunications Market, Texas Public Utility Commission, Project No. 16251, Southwestern Bell Telephone Company’s Response to Questions Regarding the Effect of the Supreme Court’s Decision in AT&T Corp. v. Iowa Utilities Board (filed Feb. 15, 1999), at 11; Proceeding on Motion of the Commission to Examine Methods by Which Competitive Local Exchange Carriers Can Obtain and Combine Unbundled Network Elements, et al., New York Public Service Commission, Case Nos. 98-C-0690, 95-C-0657, Comments of Bell Atlantic-New York (filed March 4, 1999), at 8-9.

78/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 738.

Section 251(d)(2) also precludes restrictions on who can buy mandatory network elements and for what purpose. Section 251(d)(2)(b) requires ILECs to provide a network element to a requesting carrier “to provide the services that it seeks to offer.” The ILEC should not second guess a carrier’s stated need to use a network element to serve its customers. As noted above, CLECs’ needs for network elements will vary substantially depending upon many factors. The Commission cannot and should not attempt to write rules that would predict what those factors might be. Such an endeavor is neither possible nor lawful. The existence of a class-of-service limitation for service resale in Section 251(c)(4), but not in Section 251(c)(3), indicates that the Act does not permit class-of-service limitations on network elements. ^{79/} This view is bolstered by the Commission’s decision to read narrowly the Section 251(c)(4)(B) “class of customer” exception to unrestricted resale of ILEC services. ^{80/}

The Commission also should not attempt to narrow the geographic availability of network elements based on assumptions about the ability of CLECs to obtain those network elements for themselves (for example, because other CLECs have already done so). ^{81/} Each carrier must make the determination whether the

^{79/} As interpreted by the Commission, Section 251(c)(4)(B) permits an ILEC to restrict the availability of services for resale only under limited circumstances: e.g., the resale of residential class service to business customers, or resale of means-tested services to other customers. “All other cross-class selling restrictions are presumed unreasonable.” See Local Competition Order at ¶¶ 962, 963.

^{80/} Id. at ¶¶ 962-64.

^{81/} For example, Bell Atlantic-New York has limited availability of combined network elements in end offices in which there are already at least two collocators.

economics of serving a particular customer or customer base via competitive facilities can be justified. The Commission should resist attempts to craft UNE rules that might incorporate such arbitrary and unlawful restrictions.

IX. THE “ESSENTIAL FACILITIES” ANTITRUST DOCTRINE IS NOT RELEVANT TO THE SECTION 251(D)(2) INQUIRY.

The FCC has asked for comment on whether the antitrust “essential facilities doctrine” is relevant to the inquiry that the Commission must undertake under Section 251(d)(2). As explained below, substituting the “essential facilities” test for the “necessary” and “impair” standards would be contrary to the explicit language of the Section 251(d)(2), would violate the intent of Congress, and would improperly restrict the number and types of network elements that competitors have a right to access under the 1996 Act -- thus limiting local competition, contrary to the intent of Congress.

The essential facilities doctrine holds that if a monopolist is able to supply an input for itself in a manner that is superior to everything else that is available such that others cannot succeed unless they have access to it, that

Petitoin of New York Telephone Company for Approval of its Statement of Generally Available Terms and Conditions pursuant to Section 252 of the Telecommunications Act of 1996 and Draft Filing of Petition for InterLATA Entry pursuant to Section 271 of the Telecommunications Act of 1996, Case No. 97-C-0271, Pre-Filing Statement of Bell Atlantic-New York (filed April 6, 1998), at 9 n.10.

monopolist should be required to supply that input to others under the antitrust laws. **82/**

The essential facilities doctrine simply is not relevant to the network unbundling provisions of the 1996 Act. The network unbundling provisions are a central part of the local market-opening provisions of the Act. Congress recognized that without broad unbundling and mandated sharing of the economies of scale, scope, and connectivity of the incumbents' local network, local competition would not develop either quickly or broadly. Had Congress believed that antitrust laws would be sufficient to open up the local telecommunications market to competition, there would have been no need to pass the 1996 Act, much less to enact the network unbundling provisions.

The plain language of Section 251(d)(2), moreover, is very different from the standard used in essential facilities cases. Congress was specific both in its definition of "network element" -- which was very broad -- and in its enunciation of the standard the FCC should use in determining which network elements should be unbundled. **83/** There is nothing in the legislative history to suggest that

82/ See 3A P. Areeda & H. Hovenkamp, Antitrust Law ¶ 771a (1996). A "essential facilities" claim must satisfy five components: (1) the defendant is a monopolist; (2) the defendant's facility is essential to the plaintiff's ability to compete in a downstream market; (3) duplication of the facility by a competitor is infeasible; (4) the defendant denied the competitor use of the facility; and (5) it is feasible for the defendant to provide the plaintiff with access to the facility. See generally MCI Communications Corp. v. American Telephone & Telegraph Co., 708 F.2d 1081, 1132-33 (D.C. Cir. 1982), cert. denied, 464 U.S. 891 (1983) (combining the components into four elements).

83/ 47 U.S.C. §§ 153 (29), 251(c)(3), 251(d)(2).

Congress intended to incorporate that doctrine into the Act. If anything, the legislative history confirms Congressional interest in taking bold steps to break open the local market to competitors. **84/**

The Supreme Court decision does not require the FCC even to consider the essential facilities doctrine in its analysis here. The Supreme Court's opinion contains but one mention of the doctrine, and that is only for purposes of illustrating what *the ILECs* have argued "necessary" and "impair" means. The Court did not endorse the standard, and recognized that other standards might properly be used under Section 251(d)(2). **85/**

In sum, the Commission should interpret Section 251(d)(2) on its own terms, and in the context of the Act as a whole, without reference to antitrust doctrines that Congress did not intend to import into the Act.

84/ See, e.g., S. CONF. REP. No. 104-458, at 1 (1996) (stating that the purpose of the 1996 Act is to provide for a new, "pro-competitive, de-regulatory national policy framework designed to accelerate rapidly private sector deployment of advanced telecommunications and information technologies to all Americans"); S. REP. NO. 104-23, at 5 (1995) (stating that the 1996 Act "requires telecommunications carriers with market power over telephone exchange or exchange access service to open and unbundle network features and functions to allow any customer or carrier to interconnect with the carrier's facilities"). Significantly, Section 601(b) of the 1996 Act, which cites the effect of the 1996 Act on the antitrust laws, makes no mention of any intent to incorporate or substitute portions of the antitrust laws for the Act's provisions. 47 U.S.C. § 153 note.

85/ See *AT&T v. Iowa Utilities Board*, 119 S.Ct. at 734 (stating that "it may be that some other standard would provide an equivalent or better criterion for the limitation upon network-element availability that the statute has in mind").

X. THE AVAILABILITY OF RETAIL SERVICES DOES NOT REMOVE IMPAIRMENT WITH RESPECT TO NETWORK ELEMENTS.

The Notice asks parties to comment on whether the availability of retail local exchange services should be relevant to an analysis of whether requesting carriers are impaired without access to ILEC network elements. **86/** The Commission correctly resolved this issue in the Local Competition Order. **87/** Nothing in the Supreme Court’s decision requires that issue to be reconsidered. The Supreme Court simply asked the Commission to consider whether the availability of alternative sources of *network elements* is relevant to the “necessary and impair” test.

The availability of retail local exchange service is completely irrelevant to whether network elements -- the necessary inputs to provision of competitive local exchange services -- should be available from ILECs. Competitors do not use retail services to provide competing retail services unless they are engaging in service resale under Section 251(c)(4). Section 251(c)(3) would be entirely unnecessary if Congress believed that access to retail services for resale was all that competitors required. The market experience since 1996, moreover, shows that

86/ Notice at ¶ 43.

87/ Local Competition Order at ¶ 287 (“[A]llowing ILECs to deny access to unbundled network elements on the grounds that an element is equivalent to a service available at resale would lead to impractical results, because incumbents could completely avoid section 251(c)(3)’s unbundling obligations by offering unbundled elements to end users as retail services.”).

service resale does not provide a viable basis for local competition in any but the most limited circumstances. **88/**

The Commission detailed in the Local Competition Order the many differences between service resale and the use of unbundled network elements. **89/** For example, unlike service resale, employing network elements allows competitors to distinguish the retail services they offer from those of the ILEC and to offer exchange access services. **90/** The Commission also squarely rejected the ILECs' arguments that access to resale of retail services meant that Congress did not intend to make all network elements available to requesting carriers. **91/** The Supreme Court expressly upheld the Commission's conclusion in rejecting ILEC challenges to the "all elements" rule. **92/**

In sum, it is plain from the language and structure of the Act, from the findings in the Local Competition Order, and from the Supreme Court's decision, that resale cannot properly be considered an alternative to network elements under the Section 251(d)(2) "necessary and impair" standard..

88/ See, e.g., Kim, Gary, "Batten the Hatches," Phone +, Dec. 1998, at 40.

89/ Local Competition Order at ¶¶ 328-341.

90/ Id. at ¶¶ 332-33.

91/ Id. at ¶¶ 329-31.

92/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 736.

XI. THE FCC SHOULD REINSTATE ITS RULE REQUIRING ILECS TO COMBINE ELEMENTS FOR THE REQUESTING CARRIER.

The Commission's original Rule 51.315(c)-(f) required ILECs to combine network elements for a requesting carrier even if they are not ordinarily combined in the ILEC network, so long as such combination is technically feasible and would not impair others' access to network elements or interconnection. ^{93/} Rule 51.315(c)-(f) was vacated by the Eighth Circuit along with Rule 51.315(b).

Rule 315(c)-(f) should be reinstated because the Eighth Circuit's rationale for vacating the rule is no longer valid in light of the Supreme Court's decision in AT&T v. Iowa Utilities Board. ^{94/} The FCC has ample statutory

^{93/} The Commission's rules provide that

[u]pon request, an incumbent LEC shall perform the functions necessary to combine unbundled network elements in any manner, even if those elements are not ordinarily combined in the incumbent LEC's network, provided that such combination is: (1) Technically feasible; and (2) Would not impair the ability of other carriers to obtain access to unbundled network elements or to interconnect with the incumbent LEC's network.

47 C.F.R. § 51.3159(c)(1) and (2); Local Competition Order, Appendix B, Rule 51.315(c)-(f).

^{94/} At least one state decisionmaker agrees with this view. Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture Development of Dominant Carrier Networks, Investigation on the Commission's Own Motion into Open Access and Network Architecture Development of Dominant Carrier Networks, Docket No. R93-04-003, I93-04-002, Proposed Decision of ALJ McKenzie: Interim Decision Setting Final Prices for Network Elements Offered by Pacific Bell (California Public Utilities Commission May 10, 1999), at 12-13.

authority to reinstate this rule pursuant to its Section 201(b) rulemaking authority. 47 U.S.C. § 201(b). **95/** The Supreme Court confirmed the expansive scope of the Commission's Section 201(b) authority, holding that the Commission's Section 201(b) power was broad enough to encompass the adoption of comprehensive local competition rules that are binding on state commissions. **96/**

In vacating Rule 51.315(b)-(f), the Eighth Circuit decided that because the ILECs would rather allow CLECs to come in and combine elements for themselves, that the ILECs should have no obligation to combine elements for the CLECs. **97/** The parties sought judicial review of the court's vacation of Rule 51.315(b), and the Supreme Court reversed the Eighth Circuit, concluding that the court erred in its reading of the Act. The Supreme Court concluded that in the absence of Rule 315(b), "incumbents could impose wasteful costs on even those carriers who requested less than the whole network." **98/**

Given the Supreme Court's decision, the Eighth Circuit's vacation of Rule 51.315(c)-(f) not longer rests on a correct reading of the 1996 Act. Whether or not the Eighth Circuit grants pending the motions to remand those rule sections to the FCC, the Commission should readopt the requirement embodied in those rules

95/ The Commission's original rule was adopted pursuant to Section 251(d)(1) of the 1996 Act (47 U.S.C. § 251(d)(1)); Local Competition Order at ¶ 230.

96/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 729-733.

97/ Iowa Utilities Board. v. FCC, 120 F.3d 753, 813 (8th Cir. 1997), rev'd in part and aff'd in part, AT&T Corp. v. Iowa Utilities Board, 119 S.Ct. 721 (1999).

98/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 737-38.

that the ILEC combine elements for the CLEC. Without such a requirement, the ILEC can act in a discriminatory manner, combining elements for itself but not for other carriers. ^{99/} Refusing to combine elements for CLECs would impose unnecessary and substantial costs on CLECs, costs that the ILEC itself does not have to bear, for no other reason than to deter their ability to use ILEC network elements in combination.

In addition, the Commission should make clear, in Rule 51.311, that ILECs are required to provide CLECs access to the same equipment and facilities that ILECs use themselves to combine network elements. (This proposed requirement is set forth in CompTel Proposed Rule 51.311(e).) If CLECs choose to combine themselves the network elements that are not already combined in the ILEC network (rather than asking the ILEC to do it), then CLECs must have access to the same equipment and facilities that the ILECs use in order to accomplish that combining. This requirement is mandated by the Section 251(c)(3) nondiscrimination provision and by the ILEC obligation, set forth in that section, to provide “unbundled network elements in a manner that allows requesting carriers to combine such elements” 47 U.S.C. § 251(c)(3).

^{99/} See AT&T v. Iowa Utilities Board, 119 S.Ct. at 738 (finding that Rule 51.315(b) finds its basis in the nondiscrimination requirements of Section 251(c)(3)).

XII. THE COMMISSION'S ORIGINAL LIST OF NETWORK ELEMENTS, REVISED TO REFLECT ADVANCES IN TECHNOLOGY, SHOULD BE REAFFIRMED.

Under the “necessary and impair” test discussed above, it is clear that each of the original network elements identified by the FCC in its 1996 Local Competition Order should still be mandatory. Requesting carriers would be impaired without access to each, because interchangeability has not been achieved for any, and there is no wholesale market for any of those elements (or the adequacy of self-supply). The Commission also should clarify and update its definitions to accord with developments in technology -- in particular, to reflect the development of broadband and packet network capabilities. The necessary modification to the original rules are reflected in the attached CompTel proposed rules, which Qwest fully endorses.

A. The Presence of Five of the Seven Original Elements in Section 271 Shows Congressional Intent That at Least These Elements are Subject to Section 251(c)(3).

The presence of five of the seven original network elements in the Section 271 competitive checklist is strong evidence that Congress assumed that at least these elements would be considered mandatory network elements. The remaining two -- operations support systems (OSS) and the network interface device (NID) -- also should clearly be mandatory. OSS is required by the Act's nondiscrimination provisions, so even if it were not a network element, it would be required. The NID is already a part of the standard loop offering now made by ILECs, and is a necessary part of the loop (although it can also be offered on an

unbundled basis). There is little doubt that a Commission decision to reinstate its initial list would be consistent with Congressional intent.

Some ILECs have suggested, in an attempt to circumvent the common sense reading of Section 271, that these five items are named specifically in Section 271 because Congress wanted to be sure that these elements continued to be available even if they were not considered mandatory network elements. Under this reading of Section 271, these elements would have to be made available, even though they would not be subject to cost-based pricing and nondiscrimination requirements ordinarily associated with network elements.

It is not possible, however, that Congress would have imposed an obligation to make network elements available when, according to this interpretation, requesting carriers would not be impaired without access to those elements. The more reasonable reading is that Congress wanted to be sure that at least these network elements would be a part of the competitive checklist, whatever else the FCC might mandate under Section 251(d)(2). It also is not credible that the items that are so fundamental to the development of local competition -- such as unbundled loops -- would be included in Section 271 on the assumption that the FCC might not classify them as required network elements. Such a reading of the competitive checklist would effectively write Section 251(c)(3) out of the Act.

B. The UNE List Should Be Revised to Reflect Advances in Technology.

The Commission correctly recognized in the Advanced Services Order that Section 251 of the Act applies equally to old and new network investment, to circuit-switched and packet-switched capability, to voice and data, and to conventional and advanced/broadband technologies. **100/** Congress made no distinction based on technology or service, and it did not declare that competitive access to ILEC networks would be frozen in time. **101/** Rather, the principles underlying the Act's local-market opening provisions apply just as forcefully to next generation technology as to conventional technology.

The Commission should take this opportunity to clarify that its network element definitions apply regardless of the capacity or capability of the network element. Access by competitors to advanced ILEC network capabilities is essential if they are to compete with the ILEC in the fast-developing market for high-speed, data intensive services and if they are to be able to take advantage of state of the art technology. There is absolutely no justification under the Act or as a matter of policy to exclude advanced capabilities from the list of mandatory elements. Of course, if the Commission concludes, on the basis of this record that

100/ Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, et al., Memorandum Opinion and Order and Notice of Proposed Rulemaking, FCC 98-188, released August 7, 1998 ("Advanced Services Order") at ¶¶ 11, 35, 40, 49.

101/ See Advanced Services Order at ¶ 49 ("We reject BellSouth's argument that Congress intended that Section 251(c) not apply to new technology not deployed in 1996.").

there is a wholesale market for such network elements, then it need not place those elements on the list. But as Qwest demonstrates below, such advanced capabilities as xDSL-equipped loops and other broadband loops, high-speed transport, packet transport and switching, and dark fiber, should all be mandatory UNEs, as there is no wholesale market as yet for any of them.

C. Mandatory Network Elements Under the Wholesale Market Test

1. Loops

Without access to ILEC unbundled loops, CLECs would clearly be impaired in their ability to compete. Indeed, as the Local Competition Order notes, Congress, in the Joint Explanatory Statement of the Committee on Conference, identified local loops as a network element that incumbent LECs would be required to make available to competitors. **102/** Specifically, the Committee on Conference stated that

[t]he term “network element” was included to describe the facilities, *such as local loops, . . . that a local exchange carrier must provide* for certain purposes under other sections of the conference agreement. **103/**

102/ Local Competition Order, 11 FCC Rcd at 15689, ¶ 377.

103/ H.R. Conf. Rep. No. 458, 104th Cong., 2d Sess. 116 (1996) (“Joint Explanatory Statement”) (emphasis added).

Congress also identified loops as a mandatory ILEC UNE in Section 271 of the 1996 Act. **104/**

The ILEC's ubiquitous local network means that CLECs can reach any customer through the ILEC facilities, without incurring the often substantial expense of building duplicate loops to each customer they would like to serve. The economies of scale and scope of the incumbent LEC network also mean that it is often far more efficient for CLECs to employ ILEC loops than it would be to build those loops themselves. The high individual and social costs of constructing duplicate loops, including costs associated with digging up the streets and customers' yards, also can be avoided by using the ILEC's loops.

The Commission found in the Local Competition Order that without access to ILEC loops, new entrants would need to invest in and build duplicative facilities, which, in turn, would "likely delay market entry and postpone the benefits of local telephone competition for consumers." **105/** The Commission also found that without access to ILEC loops, competitors would face increased risks of entry and increased costs of capital because of the need to "make a large initial sunk investment in loop facilities before they had a customer base large enough to justify such an expenditure." **106/**

104/ 47 U.S.C. § 271(c)(2)(B)(iv); see also Local Competition Order, 11 FCC Rcd at 15690, ¶ 377.

105/ Local Competition Order, 11 FCC Rcd at 15690, ¶ 378 (footnotes omitted).

106/ Id., 11 FCC Rcd at 15690, ¶ 378 (footnotes omitted).

By contrast, the Commission found that the ability to lease ILEC loops not only “allows the new entrant to build facilities gradually, and to deploy loops for its customers where it is efficient to do so,” but also allows competitors to use ILEC loops in areas where they constitute the most efficient means of providing competing service. **107/** For these reasons, the Commission concluded that

preventing access to unbundled loops would either discourage a potential competitor from entering the market in that area, thereby denying those consumers the benefits of competition, or cause the competitor to construct unnecessarily duplicative facilities, thereby misallocating societal resources. **108/**

These findings are correct. Requiring competitors to build duplicative local loops would delay market entry, increase the risk of entry, increase the costs of capital for competitors, and make inefficient use of societal resources.

Few would disagree with these general observations. It is essential that the Commission recognize that these principles apply to all ILEC loops, including high speed loops, loops in geographically concentrated areas, and loops in areas where CLECs have constructed loops. The availability of loops should not be restricted based on any of these considerations.

It also is essential for the Commission to make clear that the definition of unbundled loop includes all types of loops, including broadband loops (such as DS1, DS3, OC3, OC-n, PRI, and xDSL-equipped loops). The CompTel proposed

107/ Id. (footnotes omitted).

108/ Id. (footnotes omitted).

rules revise the Commission’s original definition to make this clear. **109/** The CompTel rule also defines loop in terms of functionality and capabilities, which more closely parallels the statutory conception of network elements. **110/** Finally, the CompTel definition allows the requesting carrier to designate the beginning and ending point of the loop, rather than allowing the ILEC to do so based on the architecture it has chosen. **111/**

The fact that some CLECs may be installing digital subscriber line access multiplexers (DSLAMs) does not mean that other CLECs do not need access to the DSL-equipped loops offered by ILECs. **112/** Just because the ILEC has installed electronics on a loop to increase the loop’s capacity or capability does not change the fact that the facility is still a loop (and subject to the same economic considerations discussed above as any other loop). The ILECs should not be

109/ See CompTel Proposed Rule § 51.319(a) (loop is defined as “the transmission capability (regardless of the transmission media used) . . .”). The FCC’s original definition of an unbundled loop defined it in terms of a “transmission facility,” so it clearly included the transmission capability of a loop, but because it was defined in terms of a particular technology and hardware (the main distribution frame), it was not sufficiently supple to adapt to evolutionary loop technology nor to encompass all types of loops. See former rule 51.319(a).

110/ See CompTel Proposed Rule § 51.319(a)(1). See also 47 U.S.C. § 153(29) (“network element” includes the “features, functions, and capabilities that are provided by means of such facility or equipment . . .”).

111/ See CompTel Proposed Rule § 51.319(a).

112/ In the proposed rules, DSLAMs are made available either as part of the loop (and xDSL-equipped loop) or as part of packet transport. This takes into account the fact that the DSLAM is most useful when included with other components that maximize its usefulness to entrants and to promoting advanced services competition.

permitted to force requesting carriers to purchase and collocate equipment of their own in order to be able to provide advanced services to their customers.

Competitively provided xDSL loops are not yet “interchangeable” with ILEC-provided xDSL-equipped loops. Nor is there a wholesale market yet for these loops, given the lack of interchangeability. This is not to say that the current impairments to the development of a wholesale market for xDSL-equipped loops (and possibly other broadband loops) could not be eliminated. Indeed, there may be CLECs that are interested in being wholesale providers of that network element. Some of the operational reforms that would be required before interchangeability is possible include full implementation of the Commission’s recently adopted collocation reforms; electronic access to databases with information on the availability of conditioned loops; and other OSS that can make the provisioning of a competitively supplied xDSL-equipped loop as seamless as the ILEC xDSL loop.

The increasing deployment of digital loop carrier technology by ILECs may mean, however, that ILEC xDSL-equipped loops must remain available when a customer is served by DLC technology, because greater obstacles exist to competitive provision of xDSL-equipped loops in that circumstance. For example, CLECs may need to collocate in the remote terminal, which may be more costly than collocating in the central office. There may also be space limitations in that circumstance as well.

Regardless of future developments in this area, it is plain that today there is no wholesale market for the xDSL-equipped loop element (or for any other

loop). The ILECs own arguments reveal the extent of the economies they enjoy by integrating xDSL into their own networks -- something that CLECs by definition cannot do as long as they must rely on access to the underlying ILEC unbundled copper loop. For example, US West has acknowledged that volume is required to make deployment of xDSL technology justifiable, particularly in less densely populated areas. US West argued in its Section 706 petition that because it serves many less densely populated areas, and thus has lower volumes of customers per switch, it needs special incentives to invest in xDSL technology to serve those customers. **113/** As US West stated in its FCC petition:

[D]eploying xDSL to a central office requires enormous capital investments: US West must install one or more DSLAMs in each central office, prepare the loops of each MegaBit Service subscriber, and cable the office to a network of ATM switching systems. **114/**

US West also observed that

The central office equipment used to provide MegaBit service is expensive: a basic, 128-user DSLAM costs approximately \$73,000 installed (and several might be necessary), an installed ATM switching system costs approximately \$350,000, and the DS-3 networking needed to connect the central office with other central offices can cost several hundred thousand dollars. . . . **115/**

113/ Petition of US West Communications, Inc. for Relief from Barriers to Deployment of Advanced Telecommunications Services, FCC Docket No. 98-26 (filed February 25, 1998), at 25-26 (“US West Petition”).

114/ Id. 35.

115/ Id. at 31-32.

US West also correctly identifies residential and small business customers as the most vulnerable to being left out because of the relatively higher cost of serving them. **116/** US West believes it is hard to justify investing in adding xDSL for each central office serving area, even though it does not need to collocate and is not restricted in the use of collocated switching equipment, has an interoffice transport network already in place, and has the entire local customer base over which to spread the cost of that technology. One need only imagine how difficult it would be for each of US West's competitors to justify that investment.

Similarly, Bell Atlantic has argued that

The proposed rules would require incumbents to segregate advanced services electronics from their networks, and to create a new business enterprise from scratch to provide services using them -- services they provide today on an integrated basis with voice services. This would increase the cost of providing advanced services In the case of ADSL, these cost increases would be so substantial that they would make the service unaffordable for many Americans. **117/**

116/ Id. at 26.

117/ Deployment of Wireline Service Offering Telecommunications Capability, CC Docket No. 98-147, Bell Atlantic Reply Comments (filed Oct. 16, 1998), at 24, 25 (footnotes and citations omitted). Bell Atlantic quantified the added costs of providing DSL through a separate affiliate:

Today, for example, the Bell Atlantic telephone companies have begun to offer an ADSL service that is over 1,000% faster than 56 Kbps modems at a rate of \$39.95 per month. If this service were to be offered through a separate data affiliate, Bell Atlantic's costs would increase by approximately \$40 per month per subscriber. This cost increase would require a doubling of the tariff rate from \$39.95 to \$80. The increase in price would, in turn,

Indeed, according to Bell Atlantic, the costs associated with an inability to use integrated ILEC advanced service facilities would

actually encourage[] incumbent carriers not to offer advanced services to the mass market at all. Only the lucrative larger business data market might be able to sustain an advanced services affiliate. **118/**

The same is true for competitive carriers in their efforts to provide advanced services in competition with ILECs. The ILECs do not suffer the disadvantages of two separate networks, which any CLEC must suffer if it attempts to integrate its own DSL facilities with those of the ILEC.

Access to xDSL-equipped loops as a network element is therefore essential until the impairments to installing competitive DSL equipment are eliminated and a wholesale market for DSL-equipped loops has developed. The same holds true for access to other high-speed loops -- such as DS1, DS3, OC-3, and OC-n. These last-mile high-speed facilities are essential for carriers like Qwest, who have invested billions of dollars in their own high-speed intercity networks, only to be stopped cold at the local network.

reduce anticipated residential demand for ADSL service in the Bell Atlantic by as much as 80% over the next five years and hobble ADSL as a meaningful competitor to cable modems and other advanced services.”

Id.

118/ Id. at 26.

2. Network Interface Device

The Commission explained the need for access to the network interface device (“NID”) in the Local Competition Order:

[a] competitor must be able to connect its loops to customers’ inside wiring in order to provide competing service, especially in multi-tenant buildings. In many cases, inside wiring is connected to the incumbent LEC’s loop plant at the NID. In order to provide service, a competitor must have access to this facility. **119/**

The ILEC NID provides the only practical means of obtaining access to a customer’s inside wiring. The need for access to the NID, and thus to a customer’s inside wiring, is therefore critical whether a competitor is providing service using loops leased from the ILEC or using self-provisioned loops. Moreover, for all the reasons that competitors would be impaired without access to the loop network element, they would be impaired without access to the NID.

CompTel’s proposed rules correctly require the ILEC to provide access to the NID as part of the loop network element. **120/** Such access is particularly appropriate because the NID is generally provisioned today by ILECs as part of the local loop.

An inability to obtain access to the ILEC NID would, in the vast majority of cases, prevent a competitor from obtaining access to its customers’ inside wiring. As a result, a lack of access to the ILEC NID clearly would impair a

119/ Local Competition Order, 11 FCC Rcd at 15697, ¶ 392.

120/ See CompTel Proposed Rule § 51.319(a)(3).

competitor's ability to provide service. The Commission should thus require ILECs to provide access to the NID both as part of the loop UNE and as a separate network element.

3. Unbundled Local Switching

a. Circuit Switching

The Commission should make clear that all forms of switching -- local circuit, packet, and tandem -- are mandatory network elements. The CompTel proposed rule adds packet switching to the definition of switching, but otherwise leaves the original definition in Rule 319 the same.

Unbundled local switching is the key to provision of competing local exchange service on a ubiquitous basis and across a broad spectrum of customers. Congress' recognition of this fact is reflected in the Conference Committee's Joint Explanatory Statement. Like local loops, the Joint Explanatory Statement expressly lists local switching as an example of the network elements that incumbent LECs would be required to make available to competitors. According to the Joint Explanatory Statement,

[t]he term 'network element' was included to describe the . . . equipment, *such as switching*, . . . *that a local exchange carrier must provide* for certain purposes under other sections of the conference agreement. **121/**

121/ Joint Explanatory Statement at 116.

Congress also recognized the importance of access to unbundled local switching by including it as a mandatory UNE in Section 271. **122/** Several state commissions, moreover, have recognized the need for access to the local switching UNE in ordering ILECs to provide access to combinations of all elements (even in the face of the Eighth Circuit's decision to the contrary). **123/** Since the Supreme Court decision, at least one state commission has already recognized that unbundled local switching should be a mandatory network element, without limitations, because requesting carriers are clearly impaired without it. **124/**

Qwest needs access to unbundled local switching in order to provide local exchange service to its existing long distance customer base. Even for those customers that, due to size or geography, could economically be served without

122/ 47 U.S.C. § 271(c)(2)(B)(vi).

123/ Petitions for Approval of Agreements and Arbitration of Unresolved Issues Arising Under Section 252 of the Telecommunications Act of 1996, Case No. 8731, Phase II(c), Order No. 74671 (Maryland Public Service Commission Nov. 2, 1998), at 21; Investigation and Suspension of Tariff Sheets Filed by US West Communications, Inc. with Advice Letter No. 2617, Regarding Tariffs for Interconnection, Local Termination, Unbundling and Resale of Service, Docket No. 96S-331T, Commission Order on Reconsideration, Rehearing, and Reargument (Colorado Public Utilities Commission Dec. 9, 1998), at 16, 23; Investigation Regarding Compliance of the Statement of Generally Available Terms of BellSouth Telecommunications, Inc. with Section 251 and Section 252(d) of the Telecommunications Act of 1996, Case No. 98-348, Order on Reconsideration at 4 and Order at 9 (Kentucky Public Service Commission Oct. 5, 1998).

124/ Petition by AT&T Communications of the South Central State, Inc. for Arbitration of Certain Terms and Conditions of a Proposed Agreement with GE South Incorporated Concerning Interconnection and Resale under the Telecommunicaitons Act of 1996, Case No. 96-478, Order (Kentucky Public Service Commission May 13, 1999), at 2, 4.

using ILEC switching, there will be instances where those customers require services that can only be provided via lease of the ILEC switch -- for example, in the case of multi-location business customers, or in the case of a primarily data customer that also wants to buy local exchange service. The ILECs, it should go without saying, will be able to offer their customers any package of services; the CLECs must be able to offer that same complement of services in order to compete effectively.

Access to unbundled local switching to serve all classes and sizes of customers is also critical. Many CLECs will enter the market first by serving the most high volume business customers and then extending its offerings to the lower end of the market. The costs of becoming a local telephone company, even when the ILECs network elements are the facilities being used, are substantial. These costs need to be spread out over as large a customer base as possible to justify entry.

The existence of CLEC-owned local switches does not change the fact that CLECs are impaired without access to ILEC switching. Unlike the ILEC switch, the CLEC switch is not already attached to the ILEC loop. As a consequence, a competitor seeking to use an ILEC unbundled loop with a competitively supplied switch (either its own or that of another CLEC) will incur added costs, operational difficulties, and delays.

The Commission discussed these problems and the consequent need for access to the local switching UNE in the Local Competition Order. For example, the Commission noted that “[i]n the United States, there are over 23,000 central

office switches, the vast majority of which are operated by incumbent LECs.” **125/**

The Commission thus concluded that consumers would be unlikely to

receive the benefits of competition quickly if new entrants were required to replicate even a small percentage of incumbent LECs’ existing switches prior to entering the market. **126/**

The Commission also noted evidence from the Illinois Commerce Commission staff that “it takes between nine months and two years for a carrier to purchase and install a switch.” **127/** Based on this evidence, the Commission concluded that lack of access to unbundled switching from the ILEC would create a barrier to entry. **128/** By contrast, the Commission found that the ability to purchase unbundled switching would “promote competition in an area until the new entrant has built up a sufficient customer base to justify investing in its own switch.” **129/**

The added problems of purchasing and installing a switch may be worth it in the case of some customers, but in many cases they cannot be justified. That is a major reason why mass market competition has not yet taken place and why CLECs still need access to ILEC switching, regardless of their business plans or facilities ownership.

125/ Local Competition Order, 11 FCC Rcd at 15705-06, ¶ 411.

126/ Id.

127/ Id.

128/ Id.

129/ Id.

Until interchangeability of CLEC and ILEC switching is possible, then, there cannot be a wholesale market in unbundled local switching. Indeed, Qwest is not aware of any CLEC today that is selling unbundled local switching, despite the existence of numerous CLEC switches. While CLECs will continue to install their own switches, it remains the case that CLECs are impaired if they must rely on their own or other CLEC switches, given the integration of ILEC switching with ILEC loops and the lack of operational mechanisms that could enable CLEC switching to substitute seamlessly for ILEC switching.

This is not to say that interchangeability is never going to be possible for the switching element. Operational mechanisms to make these elements interchangeable operationally could be developed. Electronic cross-connect systems could be developed that would convert the current manual process for disconnecting and reconnecting ILEC loops to CLEC facilities to a software-based system (comparable to the system used to change customers using ILEC switches). In fact, as digital loop carrier technology becomes more widespread, electronic cross connect capability will be too, since that is how cross-connects are accomplished using DLC technology.

Until such reforms are made, however, competitively supplied switching is not an adequate substitute for ILEC switching, and requesting carriers will be impaired without such access.

b. Packet Switching.

In 1996, the Commission declined to include packet switching as a mandatory element because so few parties commented on the issue. **130/** Today, three years later, it has become clear that there is widespread interest in access to this network element, as evidenced by the comments in the Advanced Services Proceeding, CC Docket No. 98-147.

The Commission made it clear in its Advanced Services Order that the local market-opening provisions of the 1996 Act applied equally to circuit and packet technologies. **131/** The Commission should clarify its rules to specify that competitors have access to ILEC packet switching capability, just as they do to circuit switching. CLECs would be impaired in their ability to compete with ILECs in the provision of advanced services without access to ILEC local packet switching and packet transport, just as they would be without access for circuit switching and transport. There is no wholesale market today for these network elements.

4. Interoffice Transmission

a. Dedicated Transport

Dedicated transport must remain a mandatory network element. The threshold facility in an alternative local network is the interoffice transmission matrix that links central offices. Although new entrants are beginning to deploy

130/ Id. at ¶ 427.

131/ Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, et al., Memorandum Opinion and Order and Notice of Proposed Rulemaking, FCC 98-188 (rel. Aug. 7, 1998), at ¶¶ 11, 35, 40, 49 (“Advanced Services Order”).

alternative interoffice facilities, these facilities today remain highly concentrated and connect to only a few central offices in a state or region. Before a wholesale dedicated transport *market* can be said to exist, these competitive networks must reach a critical mass of central offices to provide other entrants a viable alternative footprint to the ILEC. As a writer in the ILEC industry trade association (USTA) magazine has observed:

The ILEC's carrier customers want to view as interchangeable all of their HICAP services in a geographic area, and they want to maximize their use of these leased facilities.^{132/}

Today, CLEC networks compete, in part, by relying on ILEC facilities to achieve the critical mass to offer commercially viable dedicated transport services. Even though an *individual* dedicated transport circuit may have a precisely defined geographic application, the ability to compete in the *market* for these services requires that competitors be able to meet the customer's potential needs more broadly. Further, for a functioning wholesale market to be sustained, CLEC networks must practically achieve cost levels comparable to those of the ILEC. This means that the cost to terminate (i.e., collocate) CLEC transmission and cross-connect systems in ILEC conditioned central office space must be comparable to the ILEC's own cost, and that CLECs have achieved a sufficient market share to realize scale economies. Neither of these conditions exist today.

^{132/} Arias, Salvador, "Wholesale Marketing Strategy: A Changing Portfolio of Opportunities," Teletimes, United States Telephone Association, Vol. 12, No. 3 (1998) at 20.

First, as noted above, CLEC interoffice networks are simply not as extensive as ILEC networks. This has two effects. One, even carriers that wish to move as much of their local transmission needs to the CLEC as possible must still maintain their existing relationship with the ILEC. This means that *all* of the contract administration, vendor coordination and procurement costs incurred to obtain piecemeal service from the CLEC are *incremental* costs to the customer. CLEC pricing must be discounted first to offset these costs simply so that the customer is *indifferent* between the CLEC and ILEC; additional discounts are likely to be necessary to attract the business itself. Second, the more limited span of the CLEC network reduces the traffic volumes that it will be likely to carry, further diminishing its potential scale.

Second, although the FCC's most recent collocation decision holds the *promise* of reduced collocation charges (and, as one consequence, more extensive network development), this order has not yet been implemented. **133/** The order has been appealed, moreover, by at least one ILEC. Before the fruits of this policy can be realized, ILECs must make available the simpler, and more cost effective, forms of collocation envisioned by that decision. Even then, however, it will take time and market experience for CLEC transport networks to evolve to a point where they have comparable scale, scope and geographic coverage as the ILECs.

133/ Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, First Report and Order and Further Notice of Proposed Rulemaking, FCC 99-48 (rel. March 31, 1999).

As one measure of ILEC transport dominance, consider the following market share for the most “competitive” dedicated service, dedicated transport for access service. The vast majority of dedicated transport demand can be found with three customers (AT&T, MCI/WorldCom and Sprint), each of whom has a strong strategic motivation to move its access business to a competitor (in addition to any cost savings). To further foster competition in the transport market, FCC rules provide customers that use an alternative to the ILEC for dedicated access transport a discount on the residual interconnection charge (over and above any discount offered by the competitive provider (CAP)). Despite these conditions, however, Bell Atlantic-South, for example, continues to enjoy an 88 percent market share after nearly five years of “competition.”^{[134](#)}/

As discussed above, the Commission must measure the existence of a wholesale market for transport over a sufficiently large geographic area for that market to be a viable one from both the point of view of the supplier of the network element and the purchaser. It would defy reason and commercial reality for the Commission to rely upon the existence of competing facilities between two end offices as evidence that there is a wholesale market for the dedicated transport element between those two offices. The transport market is not defined that way -- by the ILEC or anyone else. Rather, a requesting carrier wishing to enter a new market (or to substitute dedicated transport for shared transport) will approach

^{[134](#)} Source: Bell Atlantic Transmittal BATR98r.wk3, accompanying Bell Atlantic Transmittal No. 1065 (July 23, 1998).

transport vendors with a request to have dedicated facilities installed in a number of locations. If the requesting carrier had to research where competitive facilities existed, and then negotiate with each provider separately, and then work out coordinated provisioning for diverse transport facilities, this would be an enormous burden -- certainly qualifying as “impairment.” In addition, obtaining piece parts of dedicated transport is not likely to be anywhere near as cost-effective as obtaining all transport from the ILEC.

In the above example, we have not even addressed the question of whether competitively provided dedicated transport is “interchangeable” with the ILEC’s transport as an operational matter. For example, ILEC systems are not in place to integrate competitively provided transport with other network elements acquired from the ILEC, or to permit the seamless integration of CLEC-supplied dedicated transport with ILEC-supplied. This is not to say that such impairments could not be removed – indeed, in our view, the overarching purpose of the Act is to see that such impairments *are* removed. If ILECs would like to take dedicated transport off the UNE list, they have incentives to work with competitors to remove those impairments.

Finally, as part of the wholesale-market test, the Commission would of course need to examine whether the owners of the competing facilities are acting as wholesale transport providers. These owners, for example, may not have spare capacity, or may have operational problems in selling to other carriers (an

interchangeability problem). The Commission's findings in the Local Competition Order, therefore, remain true today:

The opportunity to purchase unbundled interoffice facilities will decrease the cost of entry compared to the *much* higher cost that would be incurred by an entrant that had to construct all of its own facilities. **135/**

In sum, dedicated transport must remain a UNE on a nationwide basis. It remains an essential input in the transport offerings of others, and there is no evidence of interchangeability or of a competitively functioning wholesale market of reasonable geographic reach in any area of the country.

b. Shared Transport.

In 1997, the Commission made clear that shared transport is a mandatory network element. **136/** Its reasoning in that decision makes it plain that under any interpretation of the “necessary and impair” test, shared transport would qualify as a mandatory element. According to that decision, lack of access to shared transport would impair the ability of competitive carriers to provide services in several respects. For example, the Commission found that:

requiring competitive carriers to use dedicated transport facilities during the initial stages of competition would create a significant barrier to entry because dedicated

135/ Local Competition Order, 11 FCC Rcd at 15718, ¶ 441 (emphasis added).

136/ Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, CC Docket Nos. 96-98, 95-185, Third Order on Reconsideration and Further Notice of Proposed Rulemaking, FCC 97-295, released August 18, 1997, aff'd, Southwestern Bell Tel. Co. v. FCC, Case. No. 97-3389 (8th Cir., August 10, 1998) (“Shared Transport Order”).

transport is not economically feasible at low penetration rates. **137/**

In addition, the Commission found that if competitors were forced to use only dedicated transport, new entrants “would be hindered by significant transaction costs” caused by continually having to reconfigure the unbundled transport elements as they acquired customers. **138/** Accordingly, the Commission concluded that lack of access to shared interoffice transport would

significantly increase the requesting carriers’ costs of providing local exchange service and thus reduce competitive entry into that local exchange market. **139/**

The Commission also concluded that access to shared transport “is particularly important for stimulating initial competitive entry into the local exchange market” because “if new entrants were forced to rely on dedicated transport facilities, . . . , they would almost inevitably miscalculate [traffic volumes] or routing patterns.” **140/** Furthermore, the Commission concluded that requiring ILECs to make transport facilities available on a shared basis would assure that the ILECs’ “significant economies of scope, scale, and density in providing transport facilities” would be “passed on to competitive carriers.” **141/**

137/ Id. at ¶ 35.

138/ Id. at ¶ 35.

139/ Id. at ¶ 34.

140/ Id. at ¶ 35.

141/ Id.

The Commission's reasoning in the 1997 order also satisfies the Qwest wholesale market test. As the Commission stated,

the need for access to all of the incumbent LEC's facilities on a shared basis may decrease as competitive carriers expand their customer base and have an opportunity to identify traffic volumes and call routing patterns. [142/](#)

The Commission also stated that it could re-evaluate whether an ILEC must continue to provide access to shared transport as a UNE:

if, in the future, competitive carriers gain sufficient market penetration to justify obtaining dedicated transport facilities, either through the use of unbundled elements or through building their [own] facilities. [143/](#)

Based on the FCC's findings in its 1997 order, and based on the continuing validity of those findings, the Commission should require shared transport to be a mandatory network element.

c. Packet Transport

The Commission should also update its network element rules to clarify that packet transport is a mandatory network element. Packet technology is becoming increasingly common in the local network, and access to this technology is essential if entrants are to be able to compete effectively in the provision of advanced services. As stated in the CompTel Proposed Rule 51.319(d)(3), packet transport includes "all features, functions and capabilities of the ILEC's packet

[142/](#) Id.

[143/](#) Id. at ¶ 35, n.95.

transport network,” including all intermediate switching or routing (as such capabilities are inherent in packet transport.

The packet transport definition is intentionally broad to reflect the robust nature of this transmission technology. Like the Commission’s own definition of shared transport, the packet transport definition encompasses a number of different configurations. For instance, the definition could include basic ATM transport between an interconnection with a CLEC’s ATM network and a customer location on the ILEC’s ATM network. Another example of packet transport would be between the CLEC’s frame relay network and a DSLAM in an ILEC’s central office. Still another packet transport configuration could be used to extend a CLEC’s data service from its packet switch all the way to the customer’s packet device, such as an ATU-remote unit, and would include all intermediate packet routing/conversion such as DSL transport and use of the DSLAM. Packet networks take many forms and the packet transport network element should be defined to keep pace with this innovative technology.

5. Signaling Networks and Call-Related Databases

The Commission should include signaling and call-related databases in the list of mandatory network elements as well. As features, functions, and capabilities provided by network facilities and equipment, signaling and call-related databases fall squarely within the definition of “network element.” **144/**

144/ 47 U.S.C. § 153(29); see also AT&T v. Iowa Utilities Board, 119 S.Ct. at 734.

Competitive carriers would clearly be impaired in their ability to provide service if they were unable to obtain access to the ILECs' signaling and call-related databases. Signaling systems set up and control the routing of calls among switches and among switches and call-related databases. Call-related databases, in turn, supply the customer information or instructions necessary for this call routing.

Access to the ILECs' signaling systems and call-related databases is thus critical to permitting the seamless routing and completion of traffic both among competitors and between competitors and the ILEC. Access to signaling and call-related databases also is essential to enabling competitive carriers to provide services at costs comparable to those of the ILECs.

Furthermore, access to signaling systems and call-related databases is necessary for interconnection with the ILECs' networks. Indeed, regardless of whether or not signaling is considered a UNE in its own right, the Commission has concluded that ILECs must provide competitors with access to signaling systems and call-related databases in providing interconnection. [145/](#)

As noted in the Local Competition Order, Senator Pressler stated during debate on the 1996 Act that "access to signaling and databases [is] important if you are going to compete and get into the market." [146/](#) Moreover,

[145/](#) Local Competition Order, 11 FCC Rcd at 15738, ¶ 478.

[146/](#) Id. at 15738, ¶ 479 n.1113, *quoting* Statement of Sen. Pressler, 141 Cong. Rec. S8163 (June 12, 1995).

Congress expressly acknowledged the importance of access to signaling and call-related databases by adding in Section 271 that RBOCs must provide competitors with “nondiscriminatory access to databases and associated signaling necessary for call routing and completion” as a precondition for receiving in-region, interLATA authority. **147/**

Denying CLECs access to the ILECs’ ubiquitous signaling networks and call-related databases would impose substantial costs on competitors and significantly delay their ability to provide service. For example, the Commission found in the Local Competition Order that the deployment of call-related databases by competitors would “represent a substantial cost to new entrants.” **148/** The Commission also found that

requiring entrants to bear the cost of deploying a fully redundant network architecture, including AIN databases and their application software, would constitute a significant barrier to market entry for competitive carriers. **149/**

Accordingly, the Commission concluded that denying access to call-related databases “would impair the ability of a competing provider to offer services such as Alternative Billing Services and AIN-based services.” **150/** These factual findings equal impairment under any fair reading of that term.

147/ 47 U.S.C. §§ 271(c)(2)(B)(x).

148/ Local Competition Order, 11 FCC Rcd at 15744, ¶ 491.

149/ Id. at 15744, ¶ 489.

150/ Id. at 15744, ¶ 491.

Denying CLECs access to signaling and call-related databases would further disadvantage competitors vis-a-vis the ILECs because the ILECs possess the vast majority of information necessary to populate the information in the call-related databases. An inability to obtain access to the ILECs' signaling systems and call-related databases, therefore, would significantly impair the ability of competitors to provide service using either network elements or interconnection. Accordingly, the Commission should include signaling and call-related databases as mandatory UNEs.

6. Operations Support Systems

The Commission also should include OSS in its list of mandatory UNEs. The Supreme Court expressly confirmed that OSS constitutes a network element under Section 3(29) of the Act, so there is no question whether OSS qualifies as a network element. **151/**

OSS also clearly meets any reasonable reading of the "necessary and impair" standard of Section 251(d)(2). Lack of access to the ILECs' OSS would drastically increase the costs and delays associated with a CLEC's ability to provide services using any entry method -- network elements, interconnection, or the resale of services. Thus, lack of access to the ILECs' OSS would severely impair the ability of competitive carriers to provide services. There are obviously no "interchangeable" OSS offerings available today, as CLECs remain dependent on

151/ AT&T v. Iowa Utilities Board, 119 S.Ct. at 734.

operational interfaces with ILEC OSS to obtain access to other ILEC network elements, interconnection, resale, and other Section 251(c) items.

As the Supreme Court stated, “OSS, the incumbent’s background software system, contains essential network information as well as programs to manage billing, repair[,] ordering, and other functions.” **152/** Similarly, as the Commission explained in the Local Competition Order, “it is the ILECs’ OSS that determine, in large part, the speed and efficiency with which incumbent LECs can market, order, provision, and maintain telecommunications services and facilities.” **153/**

The Commission correctly concluded in the Local Competition Order that:

the massive operations support systems employed by incumbent LECs, and the information such systems maintain and update to administer telecommunications networks and services, represent a significant potential barrier to entry. **154/**

Accordingly, the Commission “agree[d] with Ameritech that “[o]perational interfaces are essential to promote viable competitive entry.” **155/**

152/ Id. (emphasis added).

153/ Local Competition Order, 11 FCC Rcd at 15763-64, ¶¶ 516, 518 (footnotes omitted).

154/ Id. (footnotes omitted).

155/ Id. (footnotes omitted).

The Commission found in the Local Competition Order that lack of access to the ILECs' OSS would impair the ability of competitive carriers to provide service in several critical respects. For example, the Commission found that without access to the information maintained in the ILECs' OSS, such as "available telephone numbers, service interval information, and maintenance histories, competing carriers would operate at a significant disadvantage with respect to the incumbent." **156/** In addition, the Commission found that:

if competing carriers are unable to perform the functions of pre-ordering, ordering, provisioning, maintenance and repair, and billing for network elements and resale services in substantially the same time and manner that an incumbent can for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing. **157/**

In sum, the Commission concluded that

it is absolutely necessary for competitive carriers to have access to operations support systems functions in order to successfully enter the local service market. **158/**

These findings are as true now as they were when the Commission first made them. They provide ample support for a conclusion that CLECs would be impaired without access to OSS, under any reading of the term "impair." The

156/ Id. (footnotes omitted).

157/ Id. (footnotes omitted).

158/ Id. at 15766, ¶¶ 521, 522.

Commission's decision that OSS is an integral part of the nondiscrimination obligations of other Section 251(c) items only confirms this analysis. **159/**

The Commission should therefore require ILECs to provide OSS as a mandatory network element.

7. Operator Services and Directory Assistance

There are CLECs today that are providing (or are interested in providing) their own operator services and directory assistance (OS/DA). There also are companies that are interested in (or actually are) providing OS/DA service to other CLECs (and thus are potential wholesale providers of this network element). **160/** It appears that a wholesale market is developing for OS/DA, and that the impairments to interchangeability may be relatively easy to remove. This network element therefore may well be a candidate for an ILEC petition to remove it from the mandatory list of elements in the near future.

That being said, OS/DA must remain a network element for now. Competitively supplied (or self-supplied) OS/DA is not yet interchangeable with ILEC-supplied OS/DA. For example, competing suppliers must have equivalent access to the same data used by the ILECs, updated as frequently, and at similar cost, for there to be interchangeability. Requesting carriers also must be able to substitute the competitively supplied OS/DA for ILEC-supplied OS/DA, no matter

159/ See, e.g., 47 C.F.R. § 51.313(c); Local Competition Order at ¶ 517.

160/ Companies such as Teltrust are interested in providing OS/DA to CLECs. The necessary nondiscriminatory inputs from ILECs are not yet available, however, to create OS/DA interchangeability today.

what their network configuration and regardless of what other ILEC network elements the requesting carrier may be using. This requires an inquiry into the operational systems that are in place that would allow CLECs to use another source of OS/DA service. For example, if a CLEC is using ILEC unbundled local switching, the CLEC needs the ability to create the appropriate line class codes in the ILEC local switch in order to use its own (or another provider's) OS/DA in conjunction with local switching. This is something within the control of the ILEC.

These operational obstacles are “impairments” that the ILEC has it within its power to remove. They are the type of factors that the Commission must consider before concluding that a competitor has other sources of supply for this network element such that it is not impaired by lack of access to the ILEC network element. Until these operational obstacles are gone, the ILEC's OS/DA must remain available to requesting carriers as a network element.

8. Dark Fiber

The Commission should include dark fiber in its mandatory list of ILEC UNEs. First, as a “facility” or piece of “equipment” in the ILECs' networks that is “used in the provision of a telecommunications service,” there is no question that dark fiber qualifies as a network element under Section 3(29) of the Act. **161/** Indeed, several federal courts already have reached that conclusion. **162/** The

161/ 47 U.S.C. § 153(29).

162/ E.g., MCI Telecommunications Corp. v. Bell south Telecommunications, Inc., 7 F.Supp.2d 674, 680 (E.D.N.C. 1998); Southwestern Bell Tel. Co. v. AT&T Communications of the Southwest, Inc., 1998 WL 6577717, *6 (W.D. Tex. 1998) (affirming the same finding by the Texas Public Utility Commission); US West

Commission in the Local Competition Order declined to decide whether to require the provision of this network element because it lacked a sufficient record. **163/** The Commission should take this opportunity to place this essential element on the list of mandatory UNEs. **164/**

It is clear that without access to dark fiber, competitors would be impaired in their ability to provide advanced services. The deployment of fiber optic facilities imposes substantial costs, delays, and difficulties on competitors. Thus, just as with loops and interoffice transport, it is not always possible or economically efficient for competitors to deploy dark fiber in all the locations necessary to reach the customers that competitors wish to serve. Access to the dark fiber UNE is essential because it helps competitors like Qwest not only expand the geographic scope of their high-speed, high-bandwidth services, but also bring those services closer to the premises of customers they wish to serve. Furthermore, it gives carriers like Qwest the ability to do so (1) at costs comparable to those of the ILECs and (2) at speeds approaching those of the ILECs. It also would enable competitive providers of transport offerings to complete their networks.

Communications, Inc. v. AT&T Communications of the Pacific Northwest, Inc., 31 F.Supp.2d 839, 854 (D.Or. 1998).

163/ Local Competition Order at ¶ 450.

164/ The CompTel proposed rules do not list dark fiber as a separate network element, but instead include it in both in the loop definition and in the interoffice transmission definition. See CompTel Proposed Rules 51.319(a) and 51.319(d)(2)(i).

Competitors need access to dark fiber, as well as lit fiber, moreover, because many competitors need to be able to use their own electronics in lighting or powering the fiber. The ability to attach a CLEC's own electronics to the dark fiber UNE is important for the same reasons that many competitors wish to add their own electronics, such as DSLAMs, to the local loop to expand its speed and capabilities. A CLEC's ability to attach its own electronics enables the CLEC to better integrate the UNE into its own network. It also gives the CLEC greater control over both the UNE and its own network. Thus, access to the dark fiber UNE is just as important to a carrier's ability to provide high-speed, high-bandwidth services as is access to lit fiber.

Qwest is close to completion of its \$2.5 billion, 18,500 mile, high-capacity fiber optic network across the United States. Access to dark fiber as a network element would enable Qwest to quickly and efficiently expand the reach of its network at every level. Access to dark fiber UNEs would help expedite Qwest's efforts to bring a full complement of competitively-priced high-speed, voice, data, and video services to end user customers.

Qwest currently leases a large amount of dark fiber on its intercity network to competing carriers such as GTE and Frontier. ^{165/} Both of these carriers are ILECs themselves, and their ability to lease dark fiber from Qwest has given them the ability to function as facilities-based providers of intercity services

^{165/} See Diamond, David, "Building the Future-Proof Telco," Wired, May 1998, at 126.

without having to invest in construction of those facilities. The inability of competitive carriers to lease dark fiber from the ILECs would significantly impair the ability of competitors to provide a broad base of customers with the advanced, high-speed services that so many customers now demand. Until a competitive wholesale market develops for this network element, therefore, the Commission should include dark fiber in its list of mandatory ILEC UNEs.

CONCLUSION

For the reasons given, the Commission should adopt a “wholesale market test” to implement the standard under Section 251(d)(2). The Commission should also conclude that the original list of network elements should be readopted under the Section 251(d)(2) test, with clarifications to reflect advances in technology.

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